OFFICE OF WOMEN'S HEALTH
CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

CWHS

Data Points

RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

OVERVIEW

The California Women's Health Survey (CWHS), the first California survey to focus on women's health, began in 1997 in response to the lack of California specific data on women's health status, behaviors, attitudes, and the need for prevalence data for program evaluation and planning. The survey was established to collect, analyze, interpret, and disseminate information to guide decision-making and program planning about women's health by programs, departments, public health professionals, and policy-makers. One of the unique aspects of the survey is that in addition to core questions, programs ask questions that vary from year to year depending on the grant evaluation or program planning needs of the program participants. The survey is an effective and affordable tool for program planning and evaluation. The women's specific focus and flexibility of designing questions that meet the needs of programs is what is attractive to program participants. Questions are often pilot tested on the CWHS and then later asked on other state and national surveys. It is one of the most affordable of all of the surveys available to programs and it fills the gaps in evidence based data on women's health.

The CWHS Workgroup is an interagency group of researchers from various programs and departments who work together to plan and draft survey questions to avoid duplication from other surveys, provide peer review, and participate on an editorial board that review publications using CWHS data. This survey is conducted annually and participating programs in the CWHS Workgroup fund individual questions and analyze their own data. Program participants not only have access to program sponsored questions, they also have access to the entire survey. Therefore, programs are able to analyze their specific questions along with other survey questions to obtain a more comprehensive picture of California women. For example, program participants interested in how women with a history of intimate partner violence (IPV) could also be at risk for negative mental health outcomes or their access to food, could analyze whether IPV leads to depression or food insecurity among California women. When programs do not have enough staff to conduct data analyses other workgroup programs or the Office of Women's Health will conduct analysis and write up results that are then published by the OWH. Findings are published in reports, Data Points, journal articles, individual presentations at scientific conferences and symposiums, and website postings.

The Data Points series is a CWHS publication that is prepared by CWHS collaborating programs and coordinated by the Office of Women's Health. *Data Points: Results From the 2009 California Women's Health Surveys* is the most recent in a series that focuses on specific women's health findings based on 2009 CWHS results. The information presented in the Data Point series facilitates informed decision making. Programs and organizations use data for planning purposes, implementation, and evaluation.

The following is the list of collaborators for the *Data Points: Results From the 2009 California Women's Health Survey:*

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Office of Women's and Perinatal Services

California Department of Public Health

Cancer Control Branch, *Network for a Healthy California*, Public Health Institute

Cancer Detection Branch

Cancer Surveillance and Research Branch

Epidemiology and Prevention for Injury Control Branch

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The California Women's Health Survey (CWHS) is an ongoing annual telephone survey that collects information on a wide variety of health indicators and health-related knowledge, behaviors, and attitudes from a sample of approximately 4,000 randomly selected women, ages 18 or older. The survey began in March 1997, as a collaborative effort between the California Department of Health Services, California Department of Mental Health, California Department of Alcohol and Drug Programs, California Medical Review, Inc., California Department of Social Services, and Public Health Institute. The survey is administered by the Survey Research Group of the Public Health Institute.

Survey respondents are asked about past and present involvement in health care systems, food security status, participation in government nutrition programs, prenatal care, vitamin consumption, alcohol consumption, breastfeeding, sexually transmitted diseases, domestic violence, and utilization of cancer screening procedures and other preventative measures. They also are asked for basic demographic information such as age, race/ethnicity, employment status, and education.

Participation in the CWHS is voluntary and anonymous. Interviews are conducted by trained interviewers following standardized procedures developed by Survey Research Group staff and the Centers for Disease Control and Prevention. Data are collected monthly from a random sample of California women living in households with telephones. Quality control procedures are rigorous to ensure a high level of accuracy in the data collected. Using a computer-assisted telephone interviewing system, interviewers read questions as they are displayed on a computer screen. Responses are keyed directly into the computer.

Once a household is reached, all women ages 18 or older, living within that household are eligible to participate in the survey. If more than one member of the household is eligible, one person is selected at random (using a computer-generated random selection algorithm) to become the respondent. If the person selected is not available, an appointment is made to conduct the interview at a different time or on another day. Once a respondent is selected, no other household member can be selected, even if it is not possible to obtain an interview from the selected respondent. Standardized procedures are followed for encouraging selected respondents who are reluctant to participate as well as for calling numbers for telephones that ring with no answer or give a busy signal.

Through the sampling process, the Survey Research Group attempts to collect interviews from a random sample that is representative of California's population. However, the age and race/ethnicity characteristics of the CWHS sample differ to some extent from those of the female California population. In addition, the probability of selection within a household varies depending upon the number of telephone numbers and individuals living

The California Women's Health Survey Methodology, 2009

Department of
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in the household. To obtain meaningful population estimates, all analyses in this report have been weighted to the age and race/ethnicity of the 2000 California female population. No adjustment is made for the observed differences in education or income: for a variable of interest, this means that if education or income of respondents varies from that of the general California population, any associations may not be captured.

Because of the limited sample size, data were distributed among four race/ethnicity groups. "White" refers to non-Hispanic Whites; "Hispanic" refers to respondents who said that they were of Hispanic origin regardless of race; "African American/ Black" refers to respondents who said that they were African American or Black; and "Asian/Other" refers to respondents who were either Asian or belonged to additional race/ethnic groups. For analyses where there were too few women in some of the more detailed groupings, the groups were collapsed into two race/ethnicity categories: "White," which referred to non-Hispanic Whites; and "non-White," which referred to women of all other race/ethnicity groups. Unless specified otherwise, comparison of behaviors and/or outcomes by the different race/ethnicity groups was not adjusted for age differences.

Data from these Data Points should be interpreted with caution. Due to the cross-sectional design of the CWHS, causality cannot be established between the variables, because they were measured simultaneously. In addition, the survey is only completed in English and Spanish, which may exclude a portion of the population. Recall bias also may be a problem; information recall may be particularly difficult on a telephone survey. Another area of concern is that over-reporting of healthy behaviors and under-reporting of unhealthy behaviors is well-documented in behavioral survey research. This study is population-based, so the results can only be generalized to non-institutionalized adult women in California living in households with telephones. However, more than 95 percent of households in California are estimated to have telephones, and the effects of non-coverage appear to be small.

Each Data Point is meant to "stand alone," with data presented based on program needs and definitions. Definitions used in one Data Point may differ from those used in another. More methodological information and a thorough examination of the representativeness of the survey sample are available from the most recent *California Women's Health Survey SAS Dataset Documentation and Technical Report.* For a copy of the most recent technical report, please contact the Survey Research Group at (916) 779-0338.

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Who Pays for Contraception? Experience of California Women Ages 18 to 49, 2008-2009

California Department of Public Health
Office of Family Planning
Family PACT Program

In 2008, more than one in five (23.5 percent) women of reproductive-age (18 to 49) in California were without health insurance coverage.[1] Contraception is critical for women of reproductive age, but without health insurance that pays its full cost, many will have significant difficulty paying for coverage. Even women with health insurance coverage may have to pay out of pocket to meet their reproductive health needs if their health insurance does not cover their method of choice. Uninsured, low income women not only lack access to preventive health care services, but also face a great challenge in paying for the contraception they need.

In the 2008 and 2009 California Women's Health Survey, the Office of Family Planning funded the question, *Who pays/paid for birth control?* Respondents chose one main response from the following: health insurance, Medi-Cal, Family PACT[2] and three out of pocket categories – the respondent herself, the respondent's sexual partner, and both the respondent and her partner. Respondents were also asked about their contraceptive use, health insurance coverage, age, and marital status.

This analysis examined the responses on the question about payment source for contraception and women's reports about their health insurance status, which included 2,640 women ages 18 to 49 who were current or previous users of contraception. Responses were weighted by age and race/ethnicity to reflect the 2000 California adult female population. Chi square statistics were used to assess the statistical significance of proportions reported; significant results were based on a *P* value that was less than or equal to .05.

Regarding health insurance coverage, 63.6 percent reported they had private/other insurance, 18.6 percent reported having public coverage, and 17.8 percent reported having no current health insurance coverage. Nearly half (48.3 percent) of women reported that their contraception was paid for out of pocket; of these women, 20.9 percent shared the cost with their partner, 15.7 percent paid themselves, and 11.8 percent reported that their partner paid. Either private or public health insurance paid for contraception for 43.2 percent of women and Family PACT covered this cost for 8.5 percent of women.

The characteristics of reproductive age women using contraception previously or currently and its method of payment are as follows:

- Of women who reported they currently have health insurance coverage (private or public), 47.7 percent said the insurance paid for their contraception, 46.6 percent paid out of pocket, and 5.7 percent said Family PACT paid.[3] However, the distribution of who pays/paid for contraception varied by the type of current health insurance coverage: women with public health insurance were more likely than those with private coverage to report that insurance paid for their contraception (54.7 percent vs. 45.7 percent). Conversely, fewer women with public health insurance reported paying out of pocket than did those with private

Public Health Message:
Contraception is one of the most widely used preventive care services of reproductive age women to avoid unintended pregnancy. A considerable proportion of women with health insurance coverage and an even higher proportion of women without health insurance coverage paid out of pocket for their contraception. Younger women who are most at risk of unintended pregnancy are most likely to have to pay for their contraception out of pocket. Public health insurance coverage appears to invest more in family planning than private insurance, thus helping women who are most likely in need of the services.

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Who Pays for Contraception? Experience of California Women Ages 18 to 49, 2008-2009

California Department of Public Health
Office of Family Planning
Family PACT Program

health insurance (32.6 percent vs. 50.7 percent).[4]

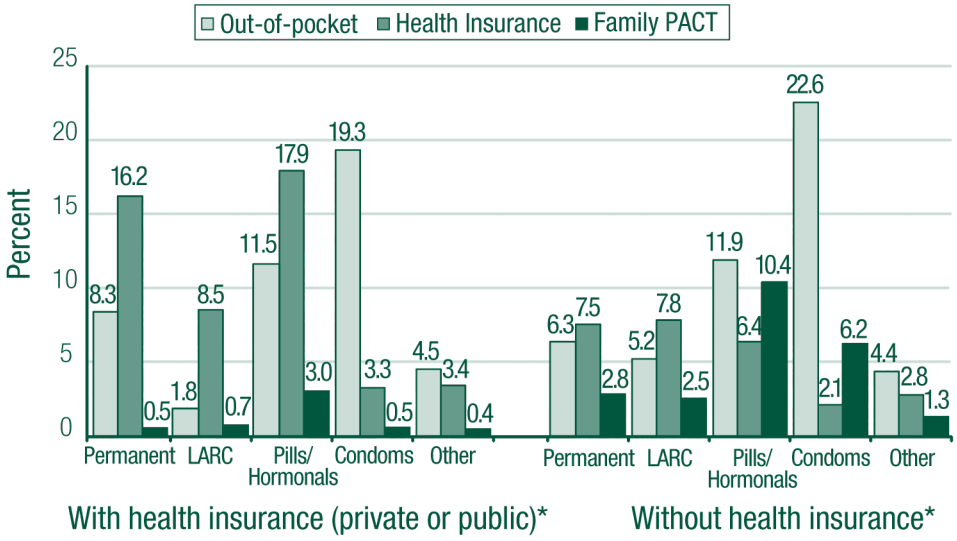
- Among women who reported having neither private nor public health insurance coverage, 55.9 percent reported paying out of pocket for their contraception, 22.5 percent said health insurance[5] paid, and 21.6 percent reported Family PACT paid.[2,6]

- Older women (ages 40 to 49) were more likely to have paid for their contraception through health insurance (40.9 percent) than younger women ages 30 to 39 (34.3 percent) and ages 18 to 29 (30.5 percent).[4]

- Never married women were more likely to have paid for their contraception out of pocket (54.4 percent), followed by divorced/widowed/separated women (50.7 percent), married women (47.3 percent), and those who were cohabiting (38.2 percent).[6]

Figure 1

Health Insurance Coverage Status and Sources of Payment for Current Use of Contraception Among Women Ages 18 to 49, California, 2008-2009



*$P < .001$

Notes: LARC are long-acting reversible contraception methods that include intrauterine contraceptives and implants. The out of pocket category consists of respondents who said their contraception was either paid for by themselves, or their partners, or shared between themselves and their partner. Five percent of women with health insurance coverage reported Family PACT as the source of payment for their contraception. Several reasons may account for this, e.g., gaps in women's health insurance coverage during the year, limited health insurance coverage that does not include prescription medicine, or that women sought confidential sources of contraception.

Source: California Women's Health Survey, 2008-2009

Who Pays for Contraception? Experience of California Women Ages 18 to 49, 2008-2009

California Department of Public Health
Office of Family Planning
Family PACT Program

Among current contraceptive users the distribution of the types of contraception and the sources of payment for contraception by health insurance coverage status is shown in Figure 1. In general, the data suggested that regardless of their health insurance coverage, they spend out of pocket to obtain contraception. The data also showed that a considerable proportion of women without health insurance coverage reported Family PACT as their source of payment for their current contraception. For example, of women without health insurance coverage, 10.4 percent reported Family PACT as their source of payment for contraceptive pills or other hormonal types of contraception.

1 University of California, San Francisco analysis of the 2009 Annual Social and Economic Supplement Current Population Survey.

2 Family PACT (Planning, Access, Care, and Treatment) is a state and federally funded program that provides reproductive health care services, including contraception, and is not considered to be a type of health insurance. In contrast, Medi-Cal is full-coverage, public health insurance.

3 This proportion potentially represents women who have had gaps in their health insurance coverage during the year, women who may have limited health insurance coverage that does not include prescription medicine, or women seeking confidential sources of contraception and using Family PACT.

4 X^2, $P < .001$

5 This proportion of women may previously have had health insurance coverage that paid for their contraception.

6 X^2, $P < .01$

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OFFICE OF WOMEN'S HEALTH
CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

CWHS

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Use of Long-Acting Reversible Contraception Methods Among California Women Ages 18 to 49, 2007-2009

California Department of Public Health
Office of Family Planning
Family PACT Program

Contraceptive use helps couples plan their families, space the births of their children, and is a critical factor in avoiding unintended pregnancy. Women can choose from a variety of available contraceptive methods based on their needs. Long-acting reversible contraception (LARC) methods[1] such as the intrauterine contraceptive (IUC) and implant are highly effective. An implant needs to be replaced after three years, while an IUC can last up to ten years. Among U.S. women ages 15 to 44 who are currently using contraception, only 5.5 percent use an IUC and 1.1 percent use implants.[2] Consequently, there is potential to expand awareness about LARC and its high efficacy and overall cost effectiveness.

Since 1997, the California Women's Health Survey (CWHS) has included annual questions sponsored by the Office of Family Planning that ask about types of contraception that are currently used by women of reproductive age to avoid unintended pregnancy. This analysis, describes the characteristics of women who reported using LARC. Contraceptive methods were classified into permanent (male and female sterilization), LARC (IUC and implant), other hormonal (oral contraceptives, injection, ring, patch), and barrier methods. The combined 2007 to 2009 CWHS datasets consisting of 6,142 women ages 18 to 49 were used to yield a more stable estimate of contraceptive use. Responses were weighted by age and race/ethnicity to reflect the 2000 California adult female population. Chi square statistics were used to assess the statistical significance of proportions reported; significant results were based on a *P* value that was less than or equal to .05.

The analysis was further restricted to sexually active women, regardless of contraception use, and those who were not pregnant or trying to become pregnant. Of this group, 22.5 percent were not currently using contraception. Among contraceptive users, 10.6 percent were using LARC methods, and of these, nearly all were IUC-users: only eight respondents (0.2 percent) reported using an implant. Hormonal contraceptives were the most common method (30.6 percent), followed by permanent methods (27.4 percent), and condoms (24.3 percent). The remaining 7.2 percent of women reported using other methods such as the sponge, cervical cap, withdrawal, and others.

Compared to women who choose hormonal contraceptives, LARC users were more likely to be older, foreign-born, and married. More than six in ten women (63.8 percent) were ages 30 and older, compared to less than half (47.2 percent) of hormonal contraceptive users. The proportion of foreign-born was 39.6 percent among LARC users vs. 29.6 percent among hormonal contraceptive users. Sixty-nine percent were married among LARC users vs. 47.7 percent among hormonal contraceptive users (Figure 1).

Public Health Message:
Although long-acting reversible contraception methods are highly effective, usage is low (albeit higher than national estimates): only 1 in 10 women among contraceptive users. Given that most unplanned pregnancy occurs among women younger than 30, increasing LARC usage among this age group can help reduce unwanted pregnancy. More clients and health-care providers need to be aware of the advantages offered by LARC for the prevention of unintended pregnancy.

Issue 8, Summer 2012, Num. 3

Use of Long-Acting Reversible Contraception Methods Among California Women Ages 18 to 49, 2007-2009

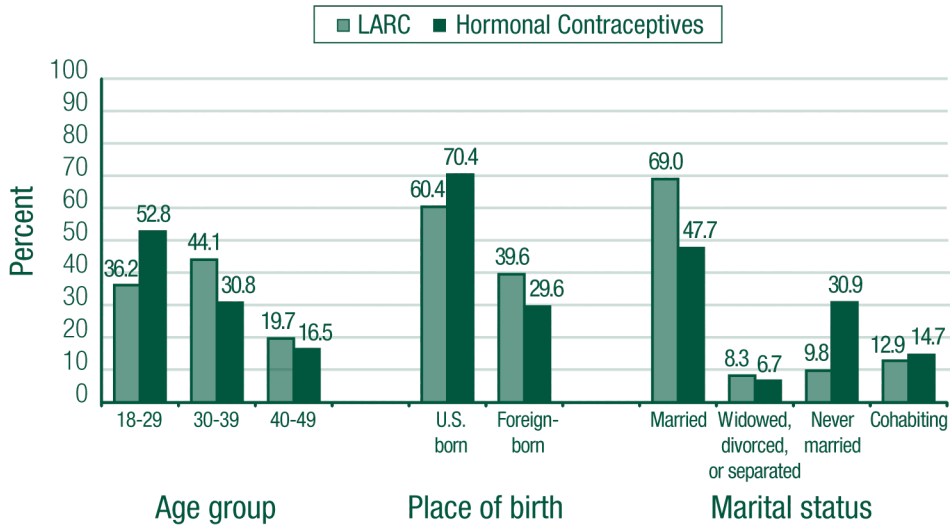
California Department of Public Health
Office of Family Planning
Family PACT Program

The characteristics of women reporting use of LARC methods were as follows:

- Slightly more women between the ages of 30 to 39 (13.0 percent) reported using a LARC method than younger women (ages 18 to 29; 11.8 percent) and older women (ages 40 to 49; 6.5 percent).
- LARC usage was higher among Hispanics (12.3 percent) and Asians/Pacific Islanders (11.0 percent) than among Whites (9.8 percent) and African Americans/Blacks (6.0 percent).
- LARC usage was slightly higher among women with household incomes at or below 200 percent of the federal poverty level than women with higher household incomes (12.0 percent vs. 9.9 percent).
- LARC usage was higher among women without current health insurance coverage (15.9 percent) than women who had public health coverage (11.3 percent) and those with private/other health coverage (9.6 percent).

Figure 1

California Women Ages 18 to 49 Using Long-Acting Reversible and Hormonal Contraceptives by Select Demographic Characteristics, 2007-2009



Notes: LARC were long-acting reversible contraception methods that included intrauterine contraceptives and implants. Hormonal contraceptives consisted of oral contraceptives, injections, rings, and patches.

Source: California Women's Health Survey, 2007-2009

Use of Long-Acting Reversible Contraception Methods Among California Women Ages 18 to 49, 2007-2009

California Department of Public Health
Office of Family Planning
Family PACT Program

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Doctor Recommended and Use of Sterilization as a Birth Control Method Among California Women, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

Denial of reproductive healthcare because of a provider's religious beliefs has led to debate about the role of conscientious objection in health care.[1-7] Research examining the beliefs of both health care professionals and women found that there should be a balance between religious liberty and access to reproductive health care.[1,8] Another aspect of women's reproductive health care involves investigating the reasons that led them to choose sterilization as their contraception method.

Female sterilization is the second leading method of contraception in the United States,[9-11] and tubal ligation has been reported as the third most popular method of contraception by California women.[12] Research shows that rates of female sterilization vary by race/ethnicity, age, education level, marital status, income, health insurance, and number of children.[9-10,12-15] Other research noted that women reported that their doctor was either not involved in their decision to be sterilized or tried to dissuade them.[16] However, no research was found that discussed whether doctors had recommended female sterilization to women.

In 2009, the California Women's Health Survey (CWHS) respondents were asked: *(1) Has your health care professional ever denied you access to reproductive care because of his or her religious beliefs?; (2) Have you ever been denied access to reproductive care from a hospital due to their religious beliefs?; and (3) Has your doctor ever recommended that you should have a tubal ligation or be sterilized rather than use other birth control methods?* In addition, women reported their age, race/ethnicity, whether they had a tubal ligation, income level, health insurance status, marital status, education, number of children, and whether they had experienced discrimination because of their race/ethnicity. The purpose of these analyses was to examine the denial of reproductive health care because of providers' religious beliefs and to assess doctor-recommended female sterilization among different subgroups of California women. Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population. Differences between groups were evaluated using Chi square statistics and *P* Values are reported for significant results.

Denial of reproductive healthcare due to providers' religious beliefs

- Of the respondents ages 18 and older, 1.3 percent reported having ever been denied reproductive health care because of the providers' religious beliefs, and 0.9 percent indicated being denied reproductive health care from a hospital due to their religious beliefs. Because of the small number of women who responded yes to being denied reproductive health care because of religion, no further analyses were conducted to examine these variables.

Doctor recommended female sterilization

- When asked about doctors' recommending sterilization, 7.7 percent of the respondents ages 18 to 49 and 7.1 percent of respondents ages 50 and older reported having sterilization recommended by their doctor.

Public Health Message:
The results indicate a trend towards sterilization for low income and less educated women and among women of color for a small number of women. It is important to monitor whether women are getting the appropriate health education information they need to make informed decisions about their choice of contraceptive method.

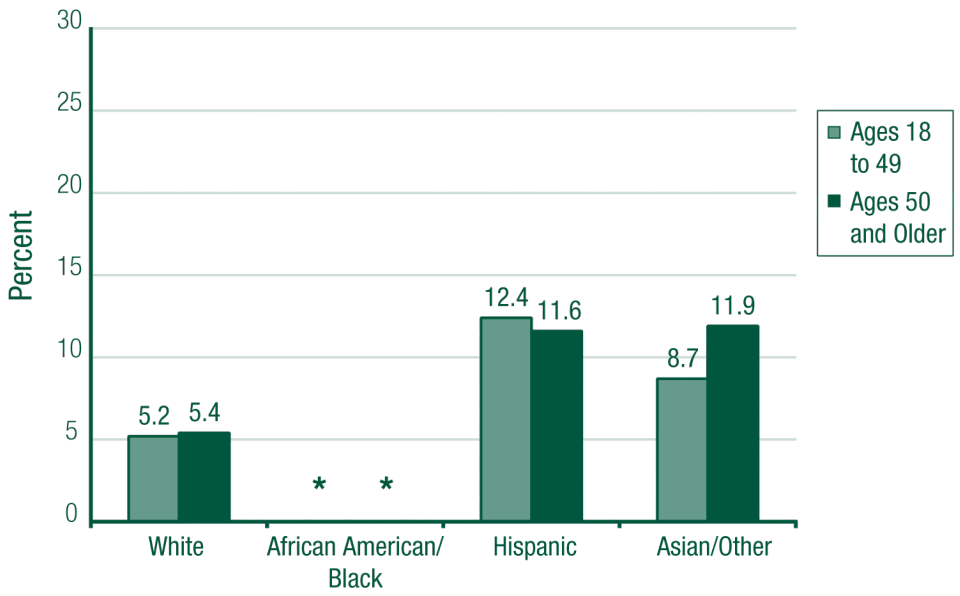
Issue 8, Summer 2012, Num. 4

Doctor Recommended and Use of Sterilization as a Birth Control Method Among California Women, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

Figure 1

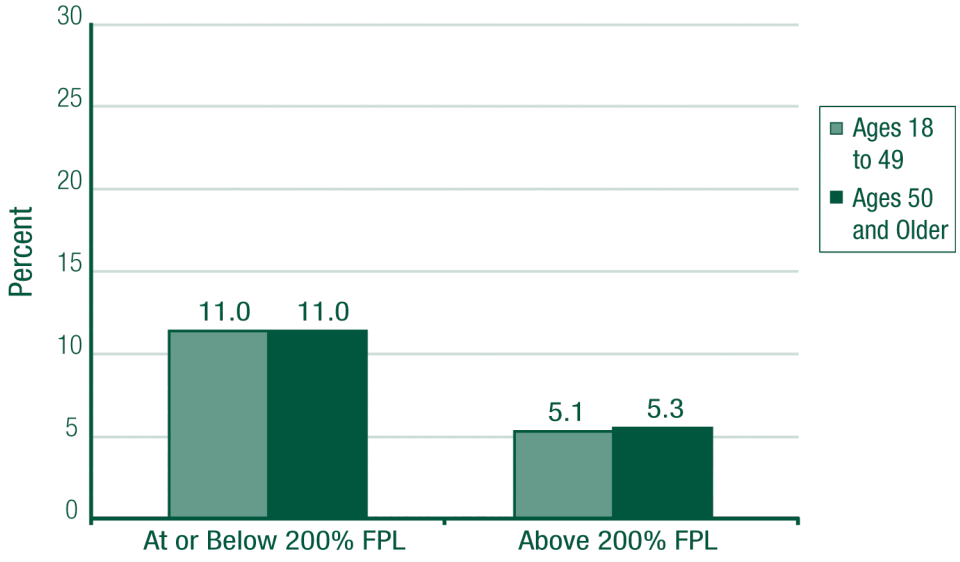
Rates of Doctor Ever Recommending Sterilization for Women Ages 18 to 49 and Ages 50 and Older by Race/Ethnicity, 2009



* - Too few for data to be reliable
Source: California Women's Health Survey, 2009

Figure 2

Rates of Doctor Ever Recommending Sterilization for Women Ages 18 to 49 and Ages 50 and Older by Federal Poverty Level (FPL), 2009

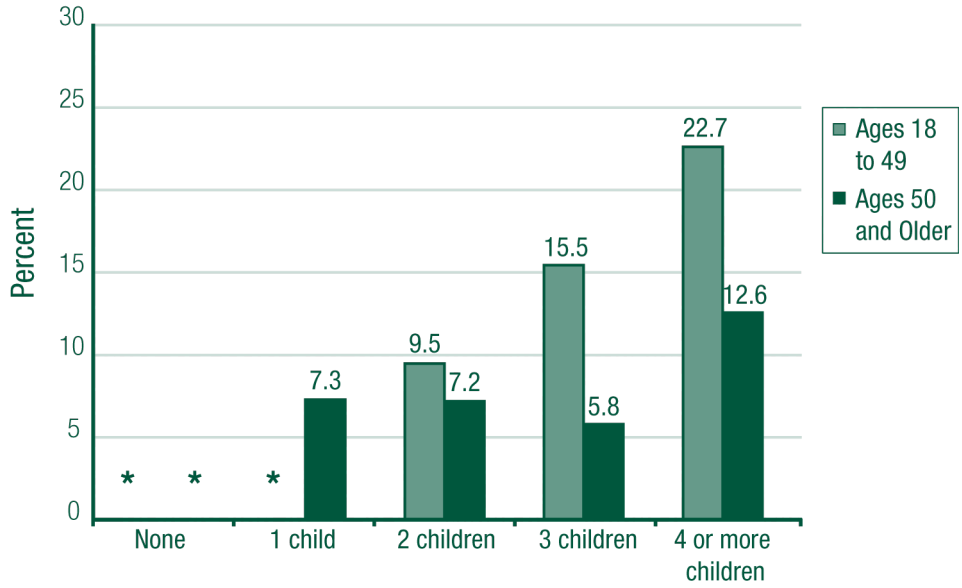


Source: California Women's Health Survey, 2009

Doctor Recommended and Use of Sterilization as a Birth Control Method Among California Women, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

Figure 3
Rates of Doctor Ever Recommending Sterilization for Women Ages 18 to 49 and Ages 50 and Older by Number of Children, 2009



* - Too few for data to be reliable
Source: California Women's Health Survey, 2009

- **For women ages 18 to 49:**
  - White women reported the lowest rate of doctor recommended sterilization (5.2 percent), while Hispanic women and Asian/Other women reported the highest (12.4 percent and 8.7 percent, respectively). However, data was unreliable due to the small sample size for African American/Black women (Figure 1).
  - Women who reported tubal ligation as their contraceptive method reported higher rates of doctor recommended sterilization (15.8 percent) than women who did not report tubal ligation (7.9 percent; P < .01).
  - Women with household incomes at or below 200 percent of the federal poverty level (FPL) reported higher rates of doctor recommended sterilization (11.0 percent) than did women above that level (5.1 percent; *P* < .0001) (Figure 2).
  - Women who were separated/divorced/widowed reported higher rates of doctor recommended sterilization (13.5 percent) than married women (9.1 percent), women who were part of an unmarried couple (8.9 percent), and women who had never married (1.8 percent; *P* < .0001).
  - Women with less than a high school education reported higher rates of doctor recommended sterilization (17.5 percent) than women with more education.
  - Women reported higher rates of doctor recommended female sterilization as their number of children increased (Figure 3). However, data was unreliable due to the small sample size for the women who reported having one or no children.

- No significant difference was found in health insurance status or having ever experienced discrimination between women who reported that their doctor recommended sterilization vs. those who did not report doctor recommended sterilization.

- **For women ages 50 or older:**
  - White women reported the lowest rate of doctor recommended sterilization (5.4 percent), while Hispanic women and Asian/Other women reported the highest (11.6 percent and 11.9 percent, respectively). However, data was unreliable due to the small sample size for African American/Black women (Figure 1).
  - Women with household incomes at or below 200 percent of the FPL reported higher rates of doctor recommended sterilization (11.0 percent) than women above that level (5.3 percent; $P < .0001$) (Figure 2).
  - Women who were separated/divorced/widowed reported higher rates of doctor recommended sterilization (10.0 percent) than other women; however, data was unreliable due to the small sample sizes for the never married and unmarried couple groups.
  - Women reported higher rates of doctor recommended female sterilization as their number of children increased (Figure 3). However, data was unreliable due to the small sample size for the women who reported having one or no children.
  - No significant difference was found in health insurance status, education level, or having ever experienced discrimination between women who reported their doctor recommend sterilization vs. women who did not report doctor recommended sterilization.

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CWHS

Data Points

RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Timing of Menopause and Use of Hormone Replacement Therapy Among California Women, Ages 18 to 54, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

Menopause occurs when a woman has been period-free for one year, which is not related to being ill, pregnant, breastfeeding, or using certain medications.[1] To relieve the symptoms of menopause, physicians may prescribe hormone replacement therapy (HRT), which previously was also hypothesized to reduce heart disease, osteoporosis, and cancer.[1] However, evidence from randomized trials published in 2002 demonstrated the adverse effects of HRT on cardiovascular health and an increase in the risk of other diseases.[2] As a result, the U.S. Preventive Services Task Force (USPSTF) recommended against the routine use of combined estrogen and progestin, one form of HRT, to prevent chronic conditions such as coronary heart disease and ovarian cancer in postmenopausal women because the harmful effects of this drug combination were likely to exceed the chronic disease prevention benefits in most women.[2] Since the USPSTF recommendation, the use of HRT in the United States[3] and in California[4] has decreased.

The California Women's Health Survey (CWHS) included questions about menopause status as well as current use of HRT. In 2007 and 2009, the CWHS asked women ages 18 and older about the status of their menstrual cycle. Response options were *still having periods, no periods because of surgery/medical reason, periods irregular because of menopause, or no periods because of menopause.* Women who reported not having regular periods were asked when they either stopped having periods or when their periods became irregular and whether their periods stopped because of menopause or for medical/surgical reasons. Women were also asked if they were currently using HRT. Data analyses were restricted to women ages 18 to 54 who answered the menopause questions (N= 2201), and results were weighted by age and race/ethnicity to reflect the 2000 California adult female population. Proportions were stratified by age, race/ethnicity, income, and health insurance status. Comparisons of proportions were assessed by the Chi square test. Lastly, the rate of HRT for women in 2007 was compared with the rate reported in 2009.

Timing of Menopause

- When asked about menopause, 78.8 percent of women reported still having regular periods; 9.1 percent reported that their periods had stopped because of medical/surgical reasons, 5.0 percent cited their periods were irregular because of menopause, and 7.2 percent reported that their periods had stopped because of menopause.

- Women ages 18 to 44 reported lower rates of periods stopping because of menopause (less than 1 percent) than women ages 45 to 54 (28.3 percent) (Figure 1). However, data were unreliable due to the small sample size for women ages 18 to 44 who reported their periods had stopped because of menopause

Public Health Message:
Women who reported surgical/medical reasons for not having periods tended to be younger at the time their periods ended and were more likely to use HRT than women who entered menopause naturally. Women with surgical/medical reasons for not having periods could potentially take HRT longer than women with natural menopause; therefore, more research is needed to examine the potentially increased health risks related to HRT in this group.

Issue 8, Summer 2012, Num. 5

Timing of Menopause and Use of Hormone Replacement Therapy Among California Women, Ages 18 to 54, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

- Hispanic women reported lower rates of being in menopause (8.5 percent) than other women. However, comparisons were unreliable due to the small sample size for African American/Black women.

- The average age of women when their periods stopped due to medical/surgical reasons was 37 (range, 16-52 years; and standard deviation was ± 8 years). However, the average age of women when their periods became irregular because of menopause was 45 (range 30-54 years; and standard deviation was ± 4 years).

- Women who reported that their periods stopped because of menopause or because of medical/surgical reasons were more likely to have insurance (87.0 percent and 83.2 percent, respectively) than women still having periods and those with irregular periods because of menopause (75.9 percent and 77.2 percent, respectively; $P < .001$).

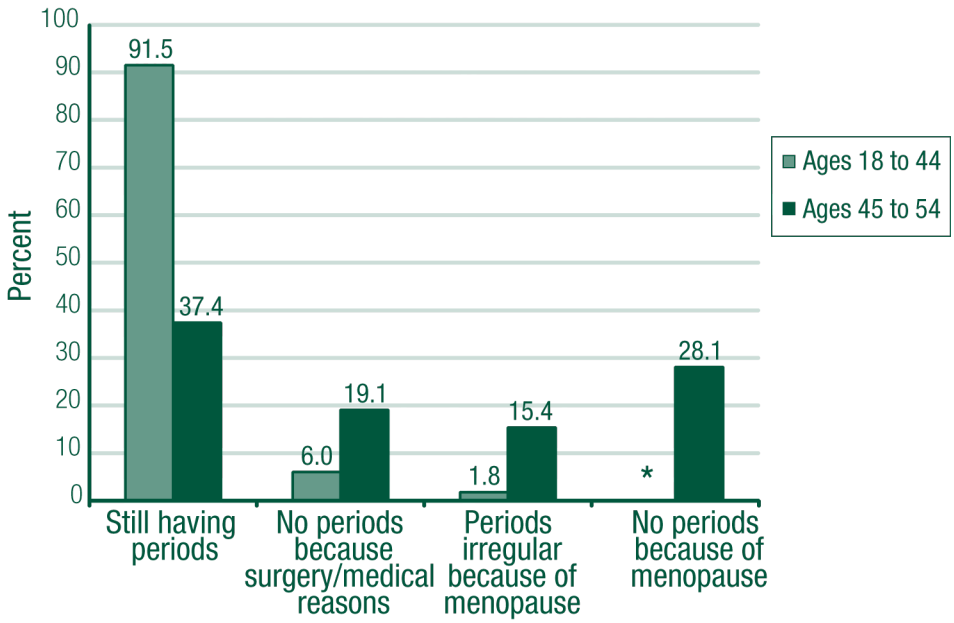
Hormone replacement therapy (HRT)

- In 2009, 11.6 percent of women who were not having periods reported using HRT compared to 13.6 percent in 2007.

- A higher proportion of women without periods because of surgery/medical reasons reported HRT use (16.3 percent) than those whose periods stopped because of menopause (10.0 percent; Figure 2). However, comparisons were unreliable due to the small number of HRT use among women who reported irregular periods.

- No significant differences were found in HRT use by poverty level, race/ethnicity, or age.

Figure 1 **Menopause Status Among California Women Ages 18 to 54 by Age Group, 2009**



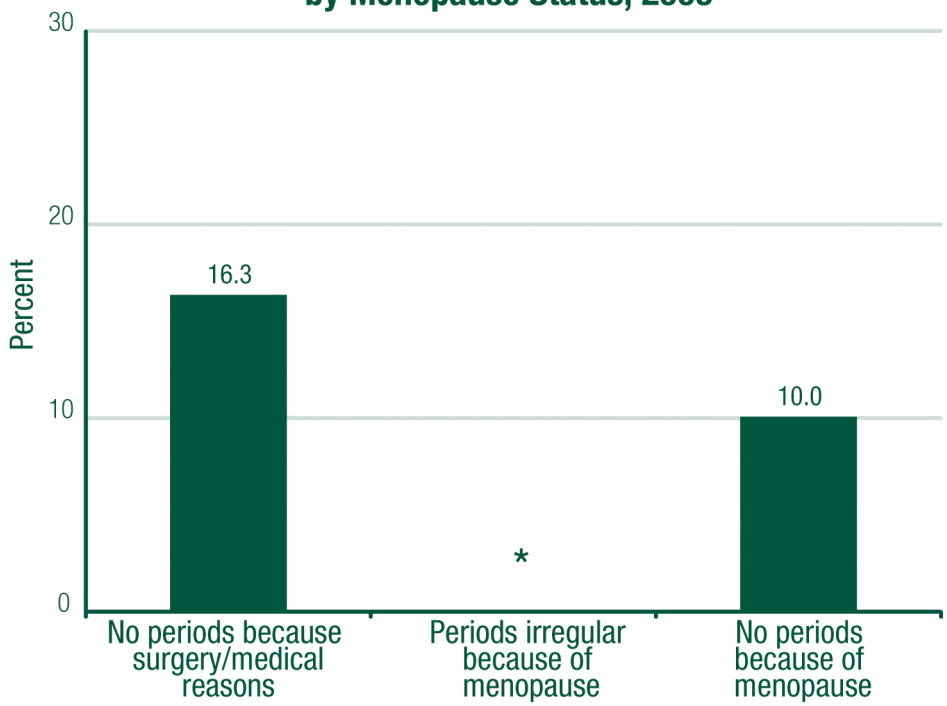
*Sample size too small for comparisons to be reliable
Source: California Women's Health Survey, 2009

Timing of Menopause and Use of Hormone Replacement Therapy Among California Women, Ages 18 to 54, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

Figure 2

Use of Hormone Replacement Therapy Among Women by Menopause Status, 2009



*Sample size too small for comparisons to be reliable
Source: California Women's Health Survey, 2009

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CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

CWHS

Data Points

RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Prescription Drug Use and Misuse Among Women: California Women's Health Survey, 2008-2009

Department of Alcohol and Drug Programs
Office of Women's and Perinatal Services
California Department of Public Health
Chronic Disease Surveillance and Research Branch

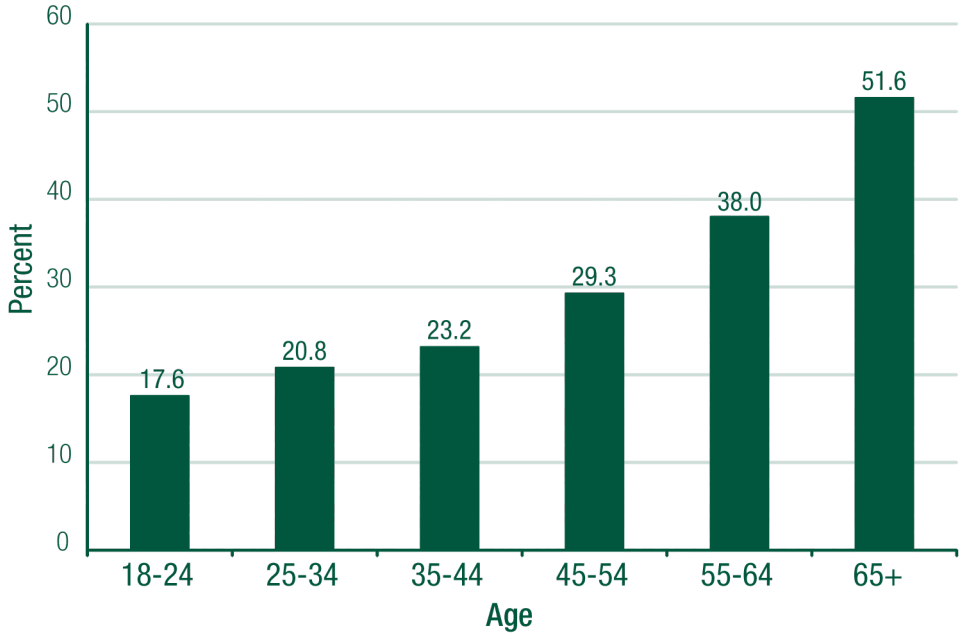
Prescription drug misuse is associated with risks for overdose, dependence, and other health and social problems.[1-6] National studies have found that young people have higher rates of prescription drug misuse (including tranquilizers, sedatives, narcotic pain medications, and stimulants) and concurrent alcohol-use disorders than older people.[3,7] A recent national study found that 6.3 percent of women ages 18 to 25 and 2.1 percent of women ages 26 and older reported misusing prescription drugs in the preceding 30 days.[7]

Prescription drug misuse also includes unintended noncompliance or risky use of prescribed drugs. Older women are more likely than men or younger women to be prescribed multiple prescription drugs,[8] which may increase the potential for unintended misuse. Furthermore, older women are particularly sensitive to the physical effects of prescription drugs and alcohol, and consequently are more vulnerable to their use and misuse.[9] With the aging of "baby boomers," rates of nonmedical use of prescription drugs among older women and men are expected to double by 2020.[10]

This report, based on combined data from the California Women's Health Survey (CWHS) 2008 and 2009 (N = 9001), examined prescription drug misuse and alcohol consumption among women. The 2008 and 2009 CWHS asked women how many different prescription drugs they

Figure 1

Percentage of Women Using One or More Prescription Drugs Per Week in the Past 12 Months by Age, 2008-2009



Source: California Women's Health Survey, 2008-2009

Public Health Message:
These findings affirm the importance of prevention and interventions designed for women of all ages at increased risk for prescription drug misuse, including hazardous use of alcohol in combination with prescription drug use. Health providers, addiction treatment professionals, and other allied professionals should be trained and prepared to identify and address the needs of diverse women with co-occurring prescription drug misuse and alcohol-related problems.

Issue 8, Summer 2012, Num. 6

Department of Alcohol and Drug Programs
Office of Women's and Perinatal Services
California Department of Public Health
Chronic Disease Surveillance and Research Branch

Figure 2

Prescription Drug Misuse in the Past 12 Months Among Women by Age, 2008-2009

Source: California Women's Health Survey, 2008-2009

took each day or each week. Prescription drug misuse was determined based on a positive response to the following question: *During the past 12 months, have you ever, even once, used a painkiller, tranquilizer, sedative, or stimulant that was not prescribed for you or that you took only for the experience or feeling that it caused?* Respondents were also asked about alcohol consumption in the past 30 days, and were classified as either nondrinkers (consumed no alcohol in the past 30 days); moderate drinkers (consumed alcohol in the past 30 days, but did not consume four or more drinks on at least one occasion); or binge drinkers (consumed four or more drinks on one or more occasions in the past 30 days). Responses were weighted by age and race/ethnicity to reflect the 2000 California adult female population. Analyses were stratified by age, race/ethnicity, income, and sexual orientation using multiple logistic regression.

Prescription Drug Use

One-half of respondents (50.0 percent) did not use any medications at all, 17.2 percent used at least one prescription drug per week, 10.3 percent used two weekly, 7.2 percent used three weekly, and the remainder (15.3 percent) used four or more per week in the past 12 months. The percentage of women using at least one prescription drug per week increased significantly by age ($P < .0001$, Figure 1). Women with access to health insurance of any kind and women with higher socioeconomic status (250 percent or above the federal poverty level) were also more likely than uninsured women or lower income women to report prescription drug use ($P < .05$).

Prescription Drug Misuse

Prescription drug misuse was reported by 7.3 percent of respondents. Drug misuse differed significantly by age ($P < .0001$). Although older women were more likely to use multiple prescribed drugs, younger women were at greater risk for prescription drug misuse (Figure 2). Prescription drug misuse was also significantly greater among Hispanic women than White women ($P < .05$) and higher among lesbian or bisexual women than heterosexual women ($P < .001$).

Prescription Drug Use and Misuse Among Women: California Women's Health Survey, 2008-2009

Department of Alcohol and Drug Programs
Office of Women's and Perinatal Services
California Department of Public Health
Chronic Disease Surveillance and Research Branch

Prescription drug misuse was strongly associated with heavier alcohol use. In the overall sample, 51.4 percent of respondents did not drink alcohol in the past 30 days (non-drinkers), 36.8 percent were moderate drinkers, and 11.8 percent engaged in binge drinking. However, binge drinking was significantly higher among respondents reporting prescription drug misuse (21.7 percent) than respondents who did not misuse prescription drugs (11.1 percent; $P < .0001$).

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CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Screening and Brief Intervention for Alcohol Consumption and Alcohol-Related Problems, 2008-2009

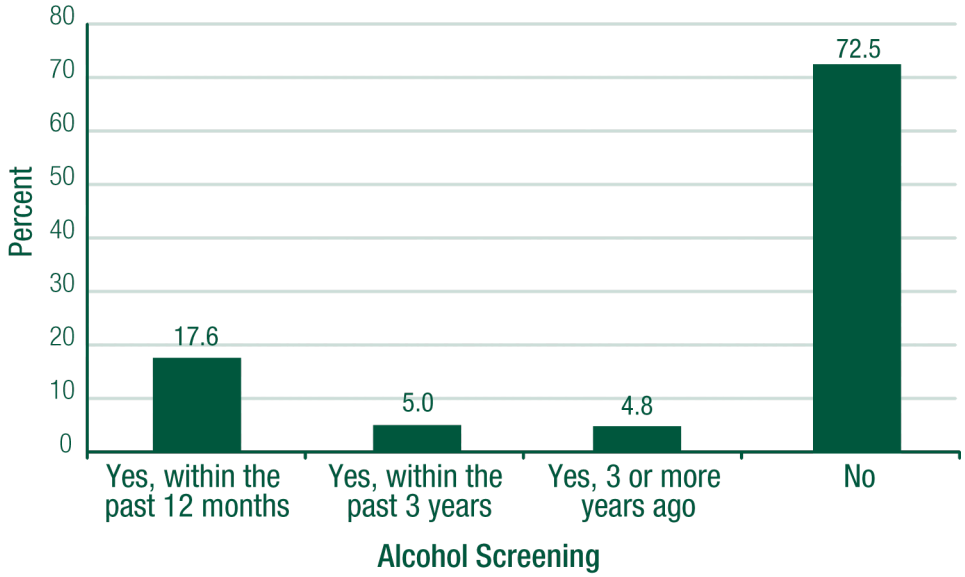
California Department of Alcohol and Drug Programs
Office of Women's and Perinatal Services
California Department of Public Health
Chronic Disease Surveillance and Research Branch

Women metabolize alcohol differently than men and, consequently, are vulnerable to experiencing negative health, social, and psychological consequences of heavy drinking in a shorter time frame.[1-2] Potential alcohol-related health consequences for women include liver problems, endocrine and gynecological problems, increased risk of breast cancer, and risk of injury.[2-3] Although young women are more likely to engage in heavy drinking, alcohol problems in older women are increasing, and the risk of negative health consequences are particularly high among older women.[1,4] There is evidence that screening and brief interventions (SBI) in primary health care settings and emergency departments may be effective in reducing hazardous drinking[6-9] in women and men.[10] At the same time, barriers to SBI are substantial and include lack of provider time, competing priorities, staff turnover, and limited expertise.[11-12]

This report, based on 2008 and 2009 combined California Women's Health Survey data (N = 9001), examined rates of screening or brief intervention for alcohol-related problems based on responses to the following questions: *Has a doctor or other health professional ever talked with you about alcohol use? If yes, about how long ago was it: within the past 12 months, within the past 3 years, or more than 3 years ago?* Respondents were also asked about alcohol consumption in the past 30 days and were classified as non-drinkers (consumed no alcohol in the past 30 days);

Figure 1

Percentage of Women Who Were Asked by Health Provider About Their Alcohol Use, 2008-2009



Source: California Women's Health Survey, 2008-2009

Public Health Message: *Findings underscore the importance of integrating SBI in preventive health services and of educating health care professionals, including physicians and mid-level professionals.[13] Increasing access to health coverage is important, as is the development of SBIs designed for different age groups. Innovative strategies for providing SBIs are needed, such as using computers and the Internet, which can help overcome barriers of limited time and resources.[14]*

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Screening and Brief Intervention for Alcohol Consumption and Alcohol-Related Problems, 2008-2009

California Department of Alcohol and Drug Programs
Office of Women's and Perinatal Services
California Department of Public Health
Chronic Disease Surveillance and Research Branch

moderate drinkers (consumed alcohol in the past 30 days but did not consume four or more drinks on at least one occasion); or binge drinkers (consumed four or more drinks on one or more occasions in the past 30 days). Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population. Analyses were stratified by age, race/ethnicity, income, and sexual orientation using multiple logistic regression.

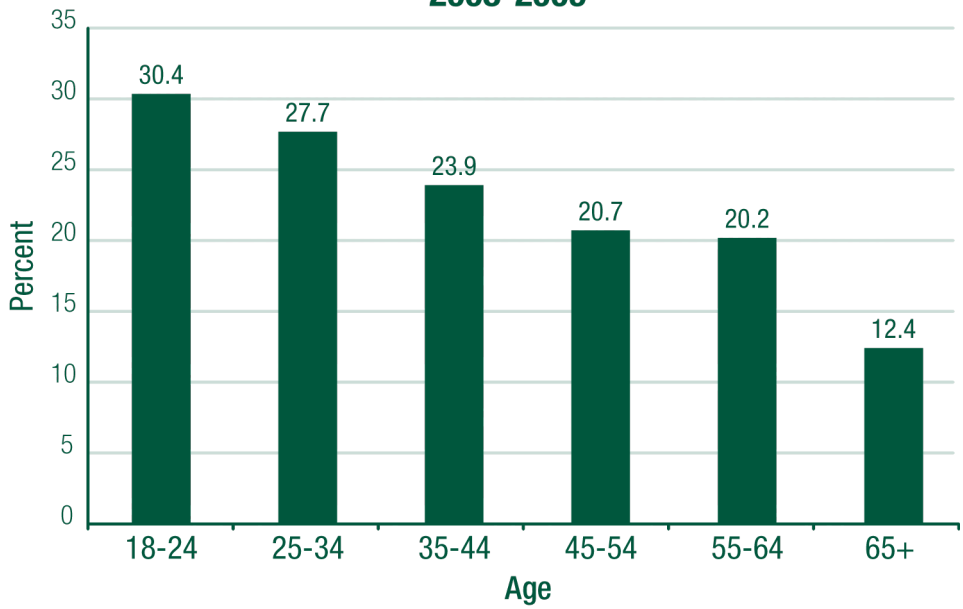
Most respondents, nearly 73 percent, said they had not been asked about their alcohol use by a health provider. Figure 1 summarizes the overall rates of screening reported by respondents.

Rates for screening or brief intervention were compared for respondents according to insurance status, age, race/ethnicity, poverty status, marital/partnership status, educational background, employment status, and sexual orientation. Significant differences in alcohol screening were only found for insurance status ($P < .0001$) and age ($P < .001$), using logistic regression and controlling for other variables. Respondents who had some form of health plan were more likely to report having had a health provider ask them about their alcohol consumption than women without insurance. Women in younger age groups were significantly more likely to be asked about alcohol consumption than women in the older age group. The percentage of women who were asked about alcohol use decreased with age (Figure 2).

Rates for screening or brief intervention were also examined by alcohol consumption, while controlling for other variables. Although the overall rates of screening or brief intervention among women were low, women who were binge drinkers were more likely to report having been asked about alcohol use in the past three years (29.0 percent) than abstainers (20.6 percent) and moderate drinkers (22.7 percent; $P < .001$). Despite having higher rates of screening, 71.0 percent of binge drinkers were not asked about their alcohol consumption by health providers.

Figure 2

Rates of Screening for Alcohol Use by Age Category, 2008-2009



Source: California Women's Health Survey, 2008-2009

Screening and Brief Intervention for Alcohol Consumption and Alcohol-Related Problems, 2008-2009

California Department of Alcohol and Drug Programs
Office of Women's and Perinatal Services
California Department of Public Health
Chronic Disease Surveillance and Research Branch

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California Department of Alcohol and Drug Programs
Office of Women's and Perinatal Services
California Department of Public Health
Chronic Disease Surveillance and Research Branch

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Recent Mammogram and Health Care Coverage of California Women Ages 40 and Above, 2005 to 2009

California Department of Public Health
Cancer Detection Section

Breast cancer is the second leading cause of cancer death for women in the United States.[1] However, breast cancer mortality rates have decreased significantly in recent years, which may be due to early detection through regular screening that includes mammograms and effective treatment.[1]

The American Cancer Society recommends that women start breast cancer screening at age 40 and continue this practice annually.[2] The Cancer Detection Section's *Cancer Detection Program: Every Woman Counts (CDP: EWC)* provides free breast cancer screening to eligible women ages 40 and older who are low income and uninsured or underinsured. Since access to health care is an impediment to regular screening,[3] public health programs such as *CDP: EWC* serve as an effective conduit to services.

Data from the 2005 to 2009 California Women's Health Survey were used to examine trends by health care coverage status in the proportion of women ages 40 and older who received a recent mammogram. Receiving a recent mammogram was defined in this analysis as having a mammogram within the past year. Respondents who had a mammogram because of breast problems or cancer were excluded from the analysis. Responses were weighted by age and race/ethnicity to reflect the 2000 California adult female population. Prevalence of women who had a recent mammogram during the period 2005 to 2009 was compared between women with health care coverage ("insured") and those without health care coverage ("uninsured") using logistic regression. Explanatory variables included in the model were an indicator for insured/uninsured status, year, and the interaction between the insured/uninsured status and year. On average, 10.8 percent of women ages 40 years and older were uninsured.

- Prevalence of women who had a recent mammogram in this period steadily increased for both insured and uninsured women. The linear trend was statistically significant for both groups ($P < .01$; Figure 1).

- Each year, a significantly higher proportion of insured women ages 40 and older received a recent mammogram than uninsured women ($P < .01$). In 2009, 72.5 percent of insured women and 44.5 percent of uninsured women had received a mammogram in the previous year (Figure 1).

- The difference between the two groups decreased during this time period, from 34.1 percentage points in 2005 to 28.0 percentage points in 2009. Using logistic regression analysis, the change in differences between the two groups was statistically significant ($P < .01$; Figure 1).

Public Health Message:
During 2005 to 2009, the difference between the insured and uninsured in the proportion of women having a recent mammogram decreased considerably. Despite a narrowing gap, still less than half of uninsured women received a recent mammogram. The findings underscore the continued importance of public health programs that enable underserved women to receive mammograms for breast cancer screening.

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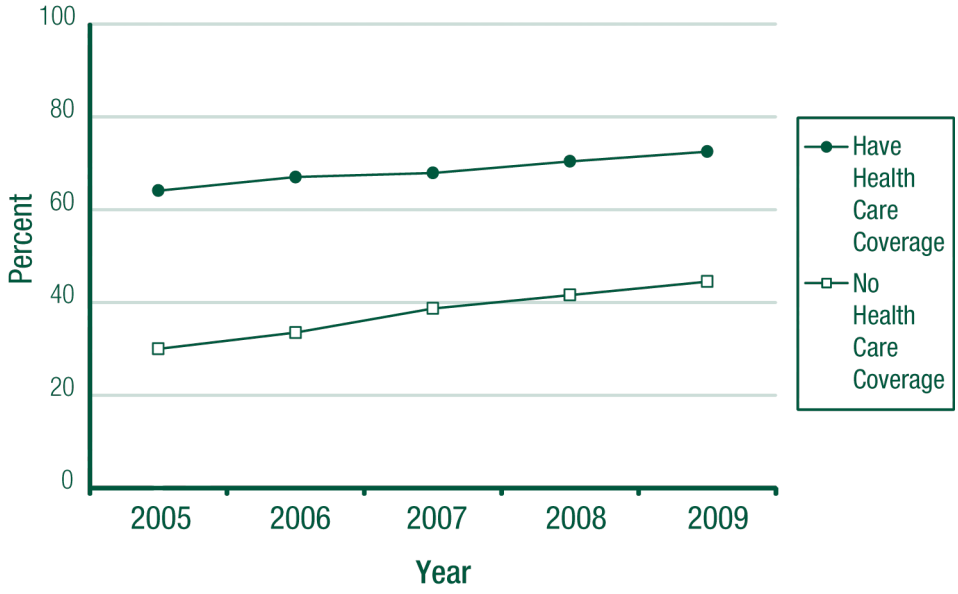
Recent Mammogram and Health Care Coverage of California Women Ages 40 and Above, 2005 to 2009

California Department of Public Health
Cancer Detection Section

Figure 1

Recent Mammogram Among California Women Ages 40 and Above by Health Care Coverage, 2005-2009



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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Opinions on the Earliest Grade for School-Based Condom Education, 2009

California Department of Public Health
Center for Infectious Diseases
Division of Communicable Disease Control
Sexually Transmitted Disease Control Branch
Survey Research Group
Chronic Disease Surveillance and Research Branch

Chlamydia and gonorrhea are the most common reportable sexually transmitted diseases (STDs) in California and the United States.[1] Adolescents and young adults comprise the majority of all chlamydia and gonorrhea cases in California.[1] Consistent and correct condom use can reduce STD acquisition and transmission. While human immunodeficiency virus (HIV)/AIDS prevention education is mandated in California for all students at least once in both middle school and high school, comprehensive sexual health education is authorized but not required.[2] The relevant legislative code indicates that, if sexual health education is provided, components of this age-appropriate education shall include medically accurate information related to all Food and Drug Administration-approved contraceptive and STD prevention methods, practice in negotiation and communication skills, and support for the option of abstinence as a healthy/safe choice.[2] Preference for comprehensive sexual education was shown to be high (89 percent) among California parents in a recent statewide survey.[3] Since 46 percent of U.S. high school students report ever having had sex, education about effective strategies to reduce STD risk is needed. As part of statewide efforts to promote the effective use of condoms to reduce STDs among sexually active adolescents, the California STD Control Branch sought to assess opinions related to the earliest grade level specifically for condom education within STD/HIV education curricula.

In 2009, the California Women's Health Survey 3,882 participants were asked: *What do you think is the earliest grade level where children should be taught in school about the role of condoms in preventing sexually transmitted diseases, including HIV?* Response options included: elementary school, 6th to 8th grade, high school, should not be taught at any grade, don't know/not sure, and refused to answer. Analysis was conducted among all respondents and among the subset of respondents with children ages 6 to 17. Analyses were stratified by respondent age (18-24, 25-34, 35-54, and 55 years or older); race/ethnicity (White, African American/Black, Hispanic, Asian/Other); education (less than high school, high school and technical school without college, college and above); income (200 percent or less of the Federal Poverty Guidelines (FPG), more than 200 percent of the FPG); and region (Northern and Sierra, Greater Bay Area, Sacramento Area, Central Valley, Central Coast, Los Angeles, and Other Southern). Statistically significant results were based on P value less than .05. Responses were weighted by age and race/ethnicity to reflect the 2000 California adult female population.

Results

- Overall, the most commonly reported earliest grade level for teaching condom education was 6th to 8th grade (49.1 percent), followed by elementary school (19.2 percent), high school (12.7 percent), do not know/not sure (1.3 percent), and refused to answer (14.6 percent) (Figure 1). There was no significant variation in

Public Health Message:

The vast majority (68 percent) of California women, including those who are parents of school-age children, support condom education by the eighth grade. These findings suggest that legislation related to accurate information about condom use in STD/HIV curricula would be widely supported.

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Opinions on the Earliest Grade for School-Based Condom Education, 2009

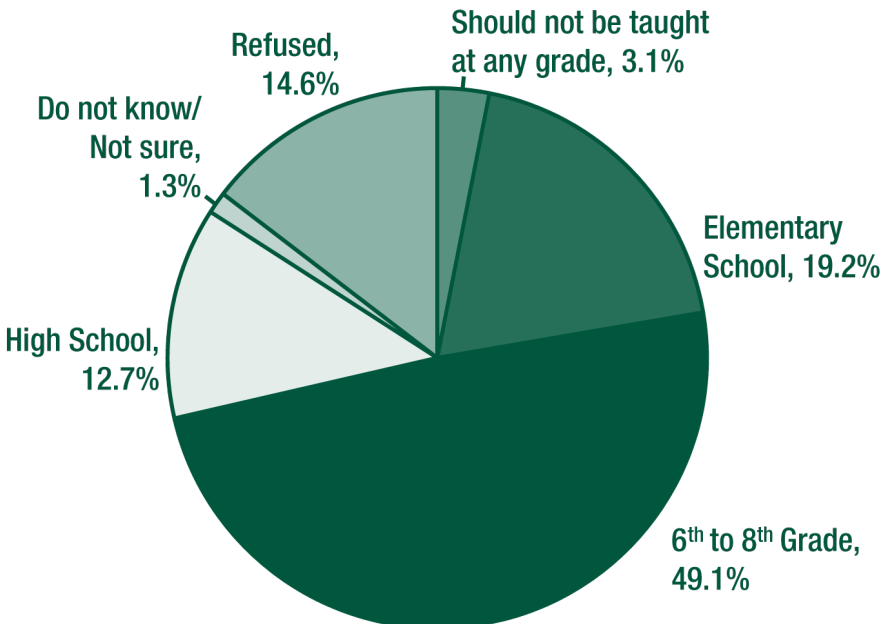
California Department of Public Health
Center for Infectious Diseases
Division of Communicable Disease Control
Sexually Transmitted Disease Control Branch
Survey Research Group
Chronic Disease Surveillance and Research Branch

these proportions by age group of respondents or when the analysis was limited to females with school-age children (ages 6-17).

- A small proportion of respondents (3.1 percent) indicated that condom education should not be taught at any level. The proportion of respondents with this opinion was higher among women ages 55 and older without school-age children (6.6 percent).
- Among respondents answering the question, there was some variation by race/ethnicity in the proportion reporting elementary school as the earliest level for condom education. The highest proportion was reported among African American/Black women (33.0 percent), which was significantly higher than for White women (21.4 percent) and Asian/Other women (19.1 percent), but was not significantly different than the proportion among Hispanic women (25.6 percent).
- In the proportion of respondents supporting lower grade levels, there were no differences by educational attainment, income, or geographic region of the state.

Figure 1

Opinion on the Earliest Grade for School-Based Condom Education, 2009



Source: California Women's Health Survey, 2009

Opinions on the Earliest Grade for School-Based Condom Education, 2009

California Department of Public Health
Center for Infectious Diseases
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Survey Research Group
Chronic Disease Surveillance and Research Branch

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Women's Reported Sexual Health Services in Relation to Sexual Risk: Role of Concurrent Partnerships, 2009

California Department of Public Health
Center for Infectious Diseases
Division of Communicable Disease Control
Sexually Transmitted Disease Control Branch
Survey Research Group
Chronic Disease Surveillance and Research Branch

Having multiple sexual partners is a well-known risk factor for sexually transmitted diseases (STDs). The risk of acquiring and transmitting a STD increases even more if sexual partnerships overlap in time for a person and/or her sex partners. These concurrent sex partner networks increase the likelihood of acquisition and transmission of STDs.[1,2] To identify people with concurrent-partner risk for appropriate STD testing and counseling regarding risk reduction, including condom use, providers need to ask about concurrent partnerships (CP) as part of routine risk assessment during healthcare visits. The California STD Control Branch sought to: (1) assess prevalence of CP among women and their sexual partners; and (2) compare levels of provider discussion, chlamydia testing, and condom use among women with or without CP.

In 2009, 2,579 California Women's Health Survey participants ages 18 to 49 were asked about the number of sex partners they had had in the previous 12 months. CP was determined with two questions pertaining to the respondent and her sex partners: *(1) Thinking of your current or most recent male sex partner, did you have sex with anyone while you were still in a relationship with someone else?; and (2) At any time within the past 12 months, did any of your male partners have sex (of any type) with someone else while they were still in a sexual relationship with you? Would you say Yes, definitely, Not sure, it is possible, No, very unlikely?* Additional responses included Refused module, *Don't know/not sure,* and *Refused*; these respondents were excluded from this analysis. CP was coded as present if the respondent reported Yes, definitely or Not sure, it is possible for either themselves or their partner; otherwise, CP was coded as not present.

Women were included in the analysis if they were ages 18 to 49 and sexually active (based on their report of one or more sex partner in the previous year). Analysis of provider risk assessment and chlamydia testing in the previous year was restricted to respondents who had seen a provider in the previous year. Responses were weighted by age and race/ethnicity to reflect the 2000 California adult female population. Proportions were stratified by age (18 to 25 years; 26 to 49 years) and race/ethnicity. Age strata were based on national recommendations for annual chlamydia screening among women ages 25 and younger. Significance was determined with the use of Chi square testing and defined as *P* value less than .05. Because of small sample sizes, results for Asian/Other women were not included in the analysis.

Highlights of the results are as follows (Figure 1 and 2):

- Overall, 15 percent of women reported CP in the previous 12 months, with a significantly higher proportion reported among women ages 18 to 25 (29.4 percent) than among older women ages 26 to 49 (11.9 percent); and a higher proportion among African American/Black women (35.0 percent), than among Hispanic women (19.3 percent) and White women (5.4 percent).

Public Health Message:
Concurrent partnerships are not uncommon among Californian adult women of reproductive age. Less than half of women with CP had had a provider risk assessment when accessing care in the previous year. More than half of older women with CP had not had a chlamydia test. Routine provider risk assessment can minimize missed opportunities to identify high-risk women for appropriate STD testing and risk-reduction counseling.

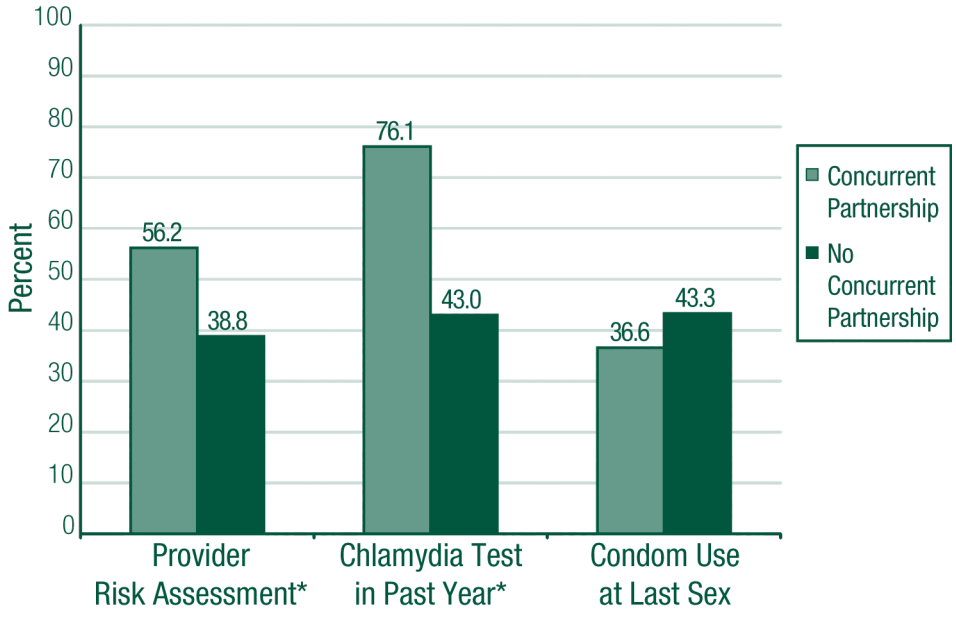
Issue 8, Summer 2012, Num. 10

Women's Reported Sexual Health Services in Relation to Sexual Risk: Role of Concurrent Partnerships, 2009

California Department of Public Health
Center for Infectious Diseases
Division of Communicable Disease Control
Sexually Transmitted Disease Control Branch
Survey Research Group
Chronic Disease Surveillance and Research Branch

Figure 1

Provider Risk Assessment, Chlamydia Testing, and Condom Use at Last Sex, by Concurrent Partnership for Women Ages 18 to 25, 2009

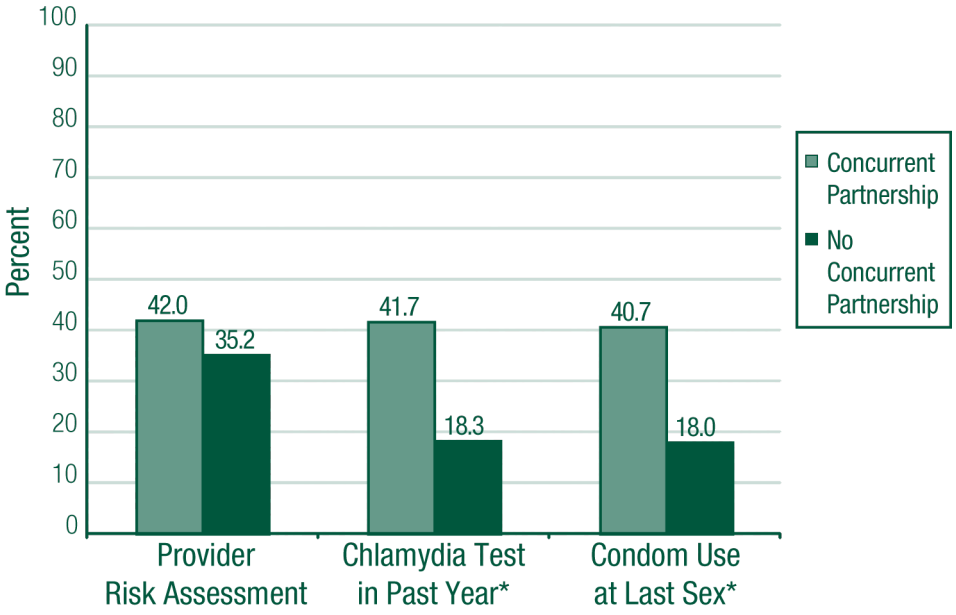


* $P < .05$

Source: California Women's Health Survey, 2009

Figure 2

Provider Risk Assessment, Chlamydia Testing, and Condom Use at Last Sex, by Concurrent Partnership for Women Ages 26 to 49, 2009



* $P < .05$

Source: California Women's Health Survey, 2009

Women's Reported Sexual Health Services in Relation to Sexual Risk: Role of Concurrent Partnerships, 2009

California Department of Public Health
Center for Infectious Diseases
Division of Communicable Disease Control
Sexually Transmitted Disease Control Branch
Survey Research Group
Chronic Disease Surveillance and Research Branch

- Overall, 87 percent of women had seen a provider in the previous year; of these, 45.8 percent had had a discussion with their provider regarding their sexual behavior. A significantly higher proportion of young women had had a provider discussion (53.9 percent), than with older women (42.3 percent). Among women who had had a medical care visit in the previous year, a significantly higher proportion of those with CP reported having a discussion with their provider (46.9 percent), than women without CP (35.7 percent).

- A significantly higher proportion of young women with CP had had a provider discussion (56.2 percent), than young women without CP (38.8 percent); the proportions of older women with provider discussion were not significantly different, by CP status (42.0 percent among older women with CP, versus 35.2 percent among older women without CP).

- The proportion of women with chlamydia testing in the previous year was significantly higher among women with CP (56.0 percent) than among those without CP (21.9 percent). A significantly higher proportion of young women reported chlamydia testing in the previous year (64.3 percent) than older women (42.3 percent). A significantly higher proportion of young women reporting CP had had chlamydia testing in the previous year (76.1 percent) than younger women without CP (43.0 percent). Similarly, a statistically significant higher proportion of older women with CP had had chlamydia testing in the previous year (41.7 percent) than women without CP (18.3 percent).

- Condom use at last sexual encounter was significantly more frequent among women with CP (39.3 percent) than those without CP (21.9 percent). A significantly higher proportion of young women reported condom use (38.8 percent) than older women (21.4 percent). There was no statistical difference in condom use among young women with CP, but a higher proportion of older women with CP reported condom use (40.7 percent) than older women without CP (18.0 percent).

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CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

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Data Points

RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Human Papillomavirus Knowledge Among California Women, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

Human papillomavirus (HPV) is the most common cause of cervical cancer. Approximately 20 million people in the United States are infected with HPV and another 6.2 million people become newly infected each year.[1-2] An estimated 11,070 U.S. women were diagnosed with cervical cancer in 2008.[1] An HPV vaccine that would protect against the main types of HPV associated with cervical cancer was approved for females ages 9 to 26.[1] Although HPV is acknowledged to be the most prevalent sexually transmitted infection (STI) in this country, less than a third of the general U.S. population has heard of HPV, and there is an even lower awareness among young women.[3] The purpose of this data point was to examine California women's awareness of the HPV vaccine, their vaccination rate, and the barriers to obtaining vaccination.

In 2009, respondents in the California Women's Health Survey were asked: *(1) Before today, have you ever heard of the cervical cancer vaccine or HPV shot?"* Women who reported having heard about the HPV vaccine were asked the following questions: *(1) Have you ever had the HPV vaccination?; (2) How many HPV shots did you receive?; and (3) What is the MAIN reason you did not receive HPV shots?* Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population. Analyses were limited to women ages 18 to 49. Comparisons between groups were evaluated using Chi square statistics. Finally, the rate of HPV vaccination for women in 2007 was compared with the rate reported in 2009.

HPV Vaccine Awareness

- Among women ages 18 to 26, 81.4 percent were aware of the HPV vaccine, as were 79.3 percent of women ages 18 to 49 (Figure 1).
- Among women ages 18 to 26, a higher proportion of women with insurance reported awareness of HPV vaccines (86.6 percent) than women without insurance (61.0 percent; $P < .0001$).
- For women ages 18 to 26, a lower proportion of those at or below 200 percent of the federal poverty level reported awareness of the HPV vaccine (71.3 percent) than women with incomes above that level (92.3 percent; $P < .0001$).
- Looking at women ages 18 to 49; there was a trend for women ages 25 to 34 to report the least awareness of HPV vaccines.
- Comparisons of HPV vaccine awareness were not performed by race/ethnicity or education levels due to small sample sizes.

HPV Vaccine Use

- Among women ages 18 to 26 who had heard of the HPV vaccine, 25.0 percent reported that they had obtained at least one HPV vaccination in 2009, compared with 8.6 percent of women in 2007.
- No significant differences were found for women who reported HPV vaccination by poverty level or insurance.

Public Health Message:
Although women ages 18 to 26 have a high awareness of the HPV vaccine, lower levels of awareness were found among low income and uninsured women. Educational materials on HPV and HPV vaccination containing information that addresses potential barriers to vaccination need to be targeted to improve awareness and vaccine coverage.

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Human Papillomavirus Knowledge Among California Women, 2009

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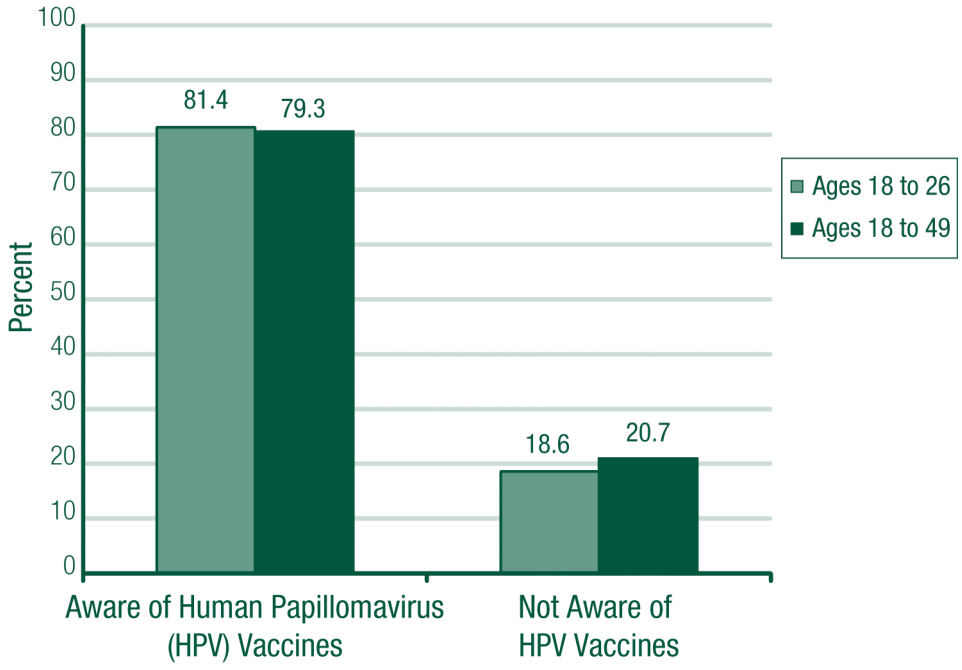
- Comparisons concerning HPV vaccine use could not be made for race/ethnicity or education levels because of small sample sizes.

Barriers to HPV Vaccine Use

- The top three barriers to HPV vaccine use among women ages 18 to 26 who reported not being vaccinated despite having heard of it were: doctor did not recommend vaccine (24.5 percent); safety concerns (23.4 percent); and lack of need for vaccine (16.9 percent; Table 1).

Figure 1

Human Papillomavirus (HPV) Vaccine Awareness by Age, 2009



Source: California Women's Health Survey, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

Table 1

Main Reasons for Not Receiving Human Papillomavirus (HPV) Vaccine (Women Ages 18 to 26, Who had Heard of the HPV Vaccine), 2009

Reason	
Doctor did not recommend vaccine	24.5%
Safety concerns (vaccine)	23.4%
Do not need vaccine	16.9%
Have not gone to the doctor	11.4%
Other	9.8%
Cost	8.2%
Plan to get vaccine soon	4.9%
Safety concerns (HPV vaccine)	1.1%

Source: California Women's Health Survey, 2009

1 CDC Fact Sheet, *Genital HPV*, http://www.cdc.gov/std/HPV/hpv-fact-sheet.pdf. Accessed December 2010.

2 Montaño, DE, Kasprzyk D, Carlin L, Freeman C. HPV Provider Survey: Knowledge, attitudes, and practices about genital HPV infection and related conditions. Executive summary. 2005. Available at http://www.cdc.gov/std/hpv/HPVProviderSurveyExecSum.pdf. Accessed December, 2010.

3 Anhang R, Goodman A, Goldie SJ. HPV communication: review of existing research and recommendations for patient education. *CA Cancer J Clin.* 2004;54: 248-259.

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

The Most Important Meal of the Day - California Women and Breakfast, 2009

California Department of Public Health
Cancer Control Branch
Network for a Healthy California
Public Health Institute

Eating a healthy breakfast has long been encouraged as a sound nutrition practice for starting the day. Several studies have found an inverse relationship between body weight and breakfast consumption.[1] Eating breakfast is one of the habits characteristic of people who are successful at maintaining weight loss and is associated with lower body mass index among adults with type 2 diabetes.[2,3]

The California Department of Public Health's *Network for a Healthy California* program promotes good nutrition and physical activity among low income Californians, with the goal of preventing obesity and other diet-related chronic diseases. These analyses were conducted with the 4,334 non-pregnant women participating in the 2009 California Women's Health Survey who answered the question: *Over the last month (past 30 days), how many times per month, week, or day did you eat breakfast or any morning meal?* Women were also asked sociodemographic questions to classify their household income by ratio to Federal Poverty Guidelines (FPG) and to identify their participation in the Food Stamp Program. Further questions established other demographic characteristics such as age, race/ethnicity, education level, as well as general health and food security status (i.e., the ability to afford enough food for an active, healthy life). Self-reported weight and height were used to calculate body mass index (BMI). Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population. Chi square tests were used for the analysis, and all findings are statistically significant at $P < .001$ unless otherwise specified.

Almost two thirds of California women (61.8 percent) reported eating breakfast. Significant associations were found between eating breakfast daily and variables associated with higher socioeconomic status:

- Only 51.9 percent of respondents living in households with income below the FPG (< 100 percent of FPG) reported eating breakfast daily vs. 59.4 percent of women from households 100 to 249 percent of FPG, and 65.6 percent of women from households 250 percent, or greater than the FPG (Figure 1).

- Household food security was significantly associated with eating breakfast daily: 66.8 percent of women living in food secure households reported that they ate breakfast daily vs. 53.8 percent living in households with low food security and only 38.3 percent living in households with very low food security.

- No significant difference was found in those reporting they ate breakfast daily among women receiving food stamps (52.3 percent) and women not receiving food stamps, but who were at or below 130 percent FPG and were therefore income eligible to do so (54.4 percent).

- The majority of women who had graduated from college (68.2 percent) reported eating breakfast daily, as did 54.0 percent of women with some

Public Health Message:
Women who are young, African American/Black, living in poverty, or who have very low food security were significantly less likely to eat breakfast daily. Although a healthy breakfast is a promising weight loss and weight management strategy, significantly fewer overweight or obese women or those who had tried to lose weight ate breakfast daily. Nutrition messaging and obesity prevention strategies emphasizing the importance of a regular, healthy breakfast can be especially useful among these segments of California women.

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college, 59.8 percent of high school graduates, and 62.4 percent of women with less than a high school education.

Age and race/ethnicity were also significantly associated with eating breakfast daily:

- Eating breakfast daily was progressively more common in older age groups: 50.1 percent among women ages 18 to 29; 56.0 percent among women ages 30 to 39; 60.1 percent among women ages 40 to 49; 65.9 percent among women ages 50 to 59; and 77.0 percent among women ages 60 and older.

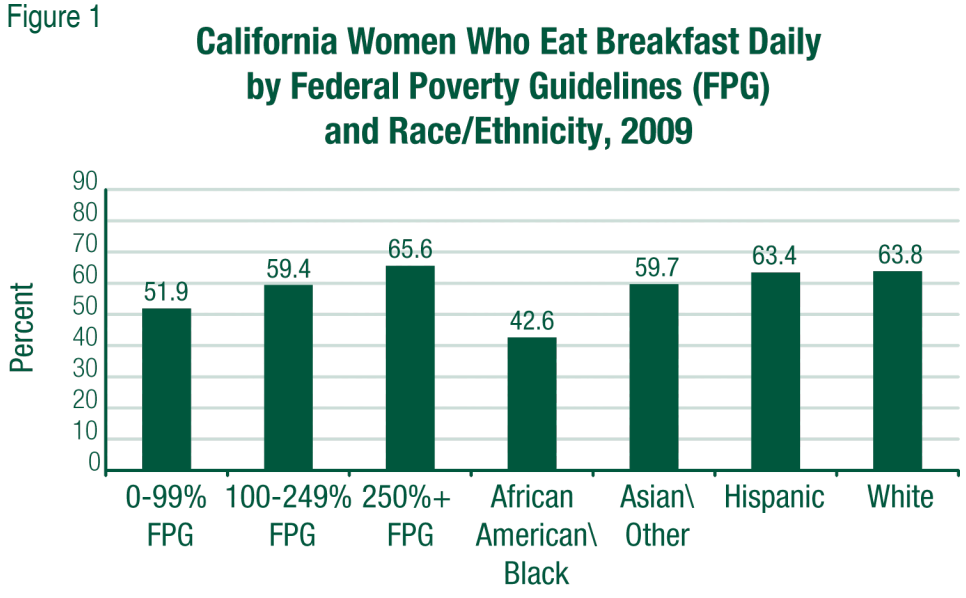
- Less than half (42.6 percent) of African American/Black women reported eating breakfast daily vs. 59.7 percent of Asian/Other women, 63.4 percent of Hispanic women and 63.8 percent of White women (Figure 1).

Regular breakfast eating was also significantly associated with indicators reflecting better health:

- Women who reported being in "excellent" or "very good" health were significantly more likely to be daily breakfast eaters (65.1 percent) than women who described their health as "fair" or "poor" (56.9 percent). Of those in "good" health, 58.6 percent ate breakfast daily.

- Women who were overweight or obese were significantly less likely to report eating breakfast daily (56.6 percent) than women who were not (61.9 percent) ($P < .01$). Also, significantly fewer women who had tried to lose weight during the past 12 months reported eating breakfast daily than those who had not tried to lose weight (59.7 percent vs. 64.5 percent, respectively; $P < .05$).

Figure 1



Source: California Women's Health Survey, 2009

The Most Important Meal of the Day - California Women and Breakfast, 2009

California Department of Public Health
Cancer Control Branch
Network for a Healthy California
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1 The Report of the Dietary Guidelines Advisory Committee on Dietary Guidelines for Americans, 2010. Section 1: Energy Balance. United States Department of Agriculture. http://www.cnpp.usda.gov/Publications/DietaryGuidelines/2010/DGAC/Report/D-1-EnergyBalance.pdf. Accessed Septermber 2010.

2 Wyatt HR, Grunwald GK, Mosca CL, Klem ML, Wing RR, Hill JO. Long-term weight loss and breakfast in subjects in the National Weight Control Registry. *Obes Res.* 2002;10(2):78-82.

3 Raynor HA, Jeffery RW, Ruggiero AM, Clark JM, Delahanty LM: Look AHEAD (Action for Health in Diabetes) Research Group. Weight loss strategies associated with BMI in overweight adults with type 2 diabetes at entry into the Look AHEAD (Action for Health in Diabetes) trial. *Diabetes Care.* 2008;31(7):1299-1304.

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Food Security Status and the Prevalence of Diet-Related Chronic Diseases Among California Women, 2009

California Department of Public Health
Cancer Control Branch
Network for a Healthy California
Public Health Institute

The U.S Department of Agriculture (USDA) defines food insecurity as the limited or uncertain availability of nutritionally adequate and safe foods or the limited or uncertain ability to acquire acceptable foods in socially acceptable ways.[1] National studies have demonstrated an association between food insecurity and diet-related chronic diseases among adults such as diabetes, hypertension, and high cholesterol.[2] This analysis examines whether a similar association is also evident among California women. The *Network for a Healthy California* is committed to improving food security, increasing fruit and vegetable consumption, and increasing physical activity among low income Californians with the goal of preventing obesity and other diet-related chronic diseases. When households lack the economic resources for enough food or enough good quality food, women and their families are less able to maintain the type of healthy diets associated with a lower risk of chronic disease.

This analysis was limited to the 3,530 women, younger than age 65, participating in the 2009 California Women's Health Survey who completed the USDA's standardized six-item validated short form of the food security scale. Responses were used to categorize women into three groups: food secure, low food security, and very low food security. Women participating in the survey were asked: *Have you ever been diagnosed with any of the following: diabetes, heart disease, high blood pressure, or high cholesterol?* Women diagnosed with gestational diabetes were excluded from the diabetes-related analysis. Self-reported height and weight were used to identify body mass index (BMI). Results were stratified by age, race/ethnicity, education, BMI, and household income by ratio to Federal Poverty Guidelines (FPG) as follows: < 100 percent FPG, 100-249 percent FPG, and >250 percent FPG). Responses were weighted by age and race/ethnicity to reflect the 2000 California adult female population.

Bivariate analysis was conducted to assess the association between food security status and the prevalence of self-reported chronic disease. Multivariate analysis was used to further control for the women's age, race/ethnicity, three income categories, education, and BMI. All reported findings were statistically significant at *P* less than .001 unless otherwise specified.

California women under age 65 reported the following rates of chronic disease: non-gestational diabetes, 5.5 percent; heart disease, 2.7 percent; high blood pressure, 16.1 percent; and high cholesterol, 18.2 percent. Because these rates were not clinically determined, they likely reflect under-reporting of actual chronic disease prevalence especially among women with limited access to health care. While the majority of women lived in households classified as food secure (69.3 percent), nearly one third reported being food insecure. Almost one in five (19.7 percent) lived in households having low food security, and more than one in ten (11.1 percent) had very low food security. The reported prevalence of each of the four diet-related chronic diseases was highest

Public Health Message:
Nearly one third of all California women were food insecure. High blood pressure remained positively associated with food insecurity even when demographics were controlled. Since self-reported diabetes, high cholesterol, and heart disease are likely underestimated among women with poor access to health care, a positive association with food insecurity may be underestimated. Economic, educational, and environmental interventions are needed to better ensure that the most nutritionally vulnerable women have access to affordable healthy food to help them manage and reduce diet-related, chronic diseases.

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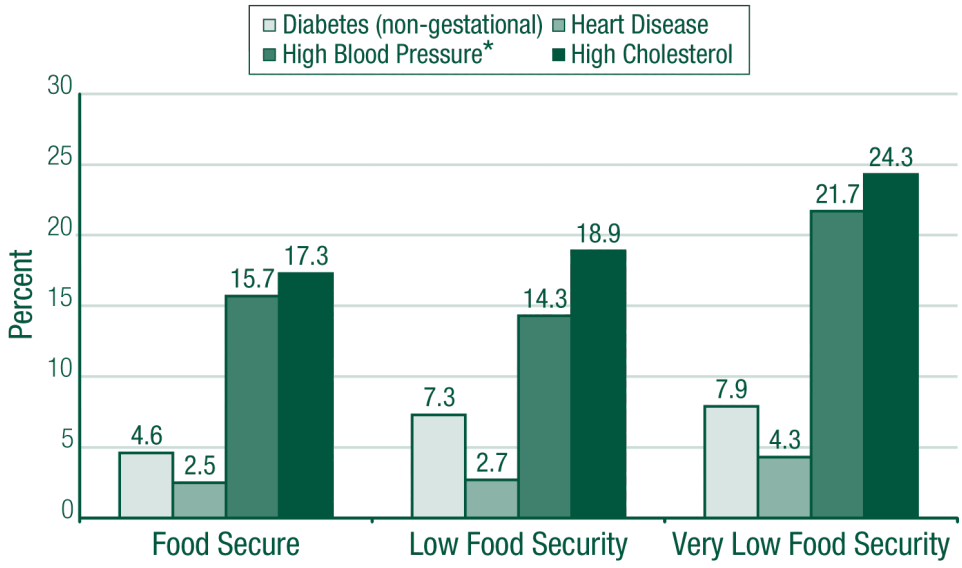
among women having very low food security (Figure 1).

Figure 1

Prevalence of Diet-Related Chronic Diseases by Food Security Status Among California Women, 2009



* Food insecurity status was positive and significant ($P < .05$) even after controlling for women's age, income level, education level, and race/ethnicity.
Source: California Women's Health Survey, 2009

Diabetes

In the simple bivariate analysis, food insecurity was positively and significantly associated ($P < .01$) with non-gestational diabetes, with a rate of 7.9 percent among women living in households with very low food security and 7.3 percent among women with low food security vs. 4.6 percent among food secure women (Figure 1). After controlling for other demographic factors with the adjusted model, food security status was no longer significantly associated with non-gestational diabetes, while older age, higher BMI, race/ethnicity, and lower education level were significantly related ($P < .01$).

Heart Disease

The reported prevalence of diagnosed heart disease was not significantly different across the three food security groups: 4.3 percent among women classified as very low food security; 2.7 percent among women living in households with low food security; and 2.5 percent among food secure women (Figure 1). With the adjusted model, food security status was not significantly different across the groups of women; however, income level ($P < .01$), education level ($P < .01$), and age were each significantly associated with heart disease in the expected direction.

Food Security Status and the Prevalence of Diet-Related Chronic Diseases Among California Women, 2009

California Department of Public Health
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High Blood Pressure

The reported prevalence of diagnosed high blood pressure was significantly different by food security status, with a rate of 21.7 percent among women classified as very low food security; 14.3 percent among women living in households with low food security; and 15.7 percent among food secure women ($P < .05$). Even with the adjusted model, food insecurity status was positively and significantly related to high blood pressure ($P < .05$), as were older age and higher BMI.

High Cholesterol

The reported prevalence of diagnosed high cholesterol was significantly different by food security status, with a rate of 24.3 percent among women classified as very low food security; 18.9 percent among women living in households with low food security; and 17.3 percent among food secure women ($P < .05$). With the adjusted model, food security status was no longer significantly associated with high cholesterol although age and BMI were positively and significantly related.

1 Food Security in the United States: Measuring Household Food Security. United States Department of Agriculture. Economic Research Service. http://www.ers.usda.gov/Briefing/FoodSecurity/measurement.htm. Accessed February 4, 2011.

2 Seligman HK, Laraia BA, and Kushel MB. Food insecurity is associated with chronic disease among low-income NHANES participants. *J. Nutr.* 2010;140:304-310.

3 Bickel G, Nord M, Price C, Hamilton W, Cook J. Guide to measuring food security, revised 2000. Alexandria, VA; Food and Nutrition Service, US Dept. of Agriculture; 2000.

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Consumption of Sugar-Sweetened Beverages Among California Women, 2009

California Department of Public Health
Cancer Control Branch
Network for a Healthy California
Public Health Institute

Consumption of soda and other sugar-sweetened beverages (SSBs) has been identified as a risk factor for obesity, metabolic syndrome, and type 2 diabetes.[1,2] In California, adults who reported drinking SSBs daily (62 percent) were 27 percent more likely to be overweight or obese than those who reported drinking no SSBs during the prior month.[1] Reducing consumption of SSBs is one of the six target areas of the Centers for Disease Control and Prevention's funded California Obesity Prevention Program.[3] It is also the focus of the California Department of Public Health's *Network for a Healthy California's Rethink Your Drink* social marketing campaign conducted in nine of the *Network's* 11 statewide regions.

These analyses were conducted with 4,333 women participating in the 2009 California Women's Health Survey who answered the question: *Over the last month (past 30 days), how many times per month, week, or day did you drink at least one 8-oz. glass of regular soda, fruit drink, or other sweet beverage like Kool-Aid, lemonade, Hi-C, cranberry juice drink, energy drink and sports drink? Include beverages you drank at all mealtimes and between meals, but do not include diet drinks.* Women were classified as high consumers of SSBs if they reported drinking at least one a day.

Women were also asked sociodemographic questions to classify their household income by ratio to the Federal Poverty Guidelines (FPG)[4] and to identify their participation in the Food Stamp Program (FSP).[5] They were asked the U.S. Department of Agriculture's standardized, six-item validated short form of the food security scale,[6] with responses categorized for these analyses as food secure[7] or not food secure. Self-reported height and weight were used to identify body mass index (BMI).[8] Additional questions established general health status, number of children in the household, educational level, age group, and race/ethnicity.

The relationship between high consumption of sweetened beverages and sociodemographic characteristics (poverty level/FSP participation, food security status, body weight category, general health status, education, age group, race/ethnicity, and children in the household) was examined using bivariate statistics and logistic regression. Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population. All findings were statistically significant at $P < .001$ unless otherwise specified.

Nearly one quarter of California women (24.4 percent) reported consuming at least one daily soda or other sweetened beverage. A strong positive association was found between the consumption of SSBs and poverty-related variables of FSP participation, decreased ratio of income to the FPG, and food insecurity (Figure 1): Consumption of SSBs increased as these increased.

- FSP participants and low income women (< 130 percent of the FPG) reported significantly greater daily consumption of SSBs (41.9 percent and 33.7 percent, respectively) than women from higher income households (23.5

Public Health Message:
Low income California women are more likely than women in higher income groups to drink one or more sugar-sweetened beverage daily, as are younger women of child bearing age and those with less education. Strong messages that promote alternative healthy, lower calorie beverages, delivered in a creative, engaging media format could be a valuable addition to public health strategies for obesity prevention, for women and their children.

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percent for women with income > 130 percent - 185 percent of the FPG, and 18.7 percent for women with income > 185 percent of the FPG). Neither the low income and FSP groups differed statistically from one another nor did the two higher income groups.

- Food-insecure women were significantly more likely to report drinking at least one SSB per day (33.9 percent) than women who reported being food secure (20.9 percent).

Although the initial regression model included all eight sociodemographic characteristic variables that had significant bivariate relationships, only four remained significant and were included in the final model: education level, age group, race/ethnicity, and poverty level/FSP participation. After controlling for the other variables in the final model:

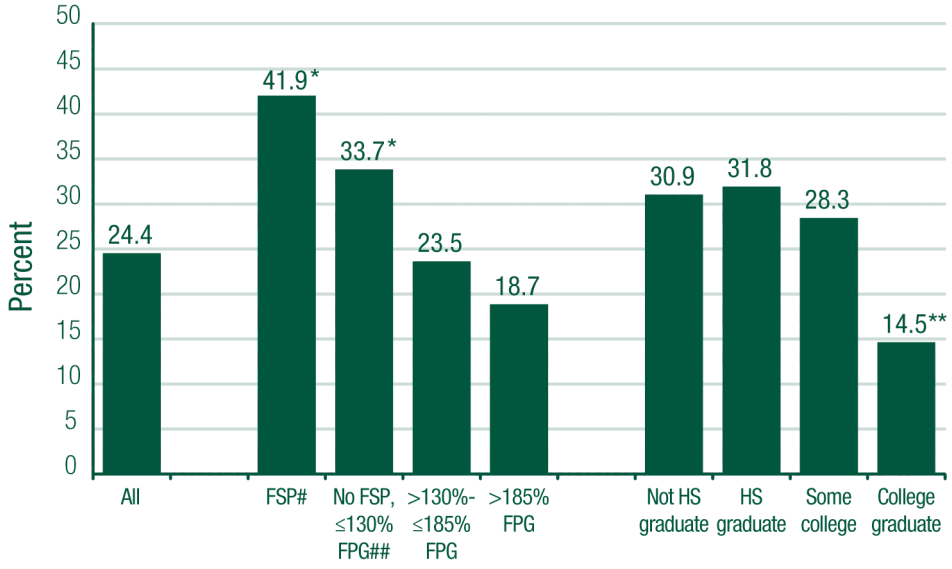
- Women who had not graduated from college were about twice more likely to drink SSBs daily than women who had graduated.

- Women ages 18 to 44 were 1.4 times more likely than women ages 45 and older to drink SSBs daily.

- Women from all other racial/ethnic groups were more likely than Hispanic women to drink SSBs daily: African American/Black women were 2.9 times more likely; White women were 1.3 times more likely; and Asian/Other women were 1.2 times more likely.

Figure 1

Sugar-Sweetened Beverage Consumption in California Women, by Food Stamp Participation, Income, and Education, 2009



* $P < .05$ between each < 130% Federal Poverty Guideline (FPG) group and each > 130% FPG group
** $P < .001$ between college graduate and each other educational level
\# Food Stamp Program participant
Not an FSP participant, but household income is at FSP qualifying cutpoint ≤ 130% FPG

Source: California Women's Health Survey, 2008-2009

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However, other than Hispanics, there were no significant differences between the racial/ethnic groups.

- FSP participants and women from low income households (< 130 percent of the FPG) were 1.9 and 1.6 times more likely respectively to drink SSBs daily than women from higher income levels.

1 Babey SH, Jones M, Yu H, Goldstein H. Bubbling over: soda consumption and its link to obesity. UCLA Center for Health Policy Research and California Center for Public Health Advocacy. http://www.healthpolicy.ucla.edu/pubs/files/Soda%20PB%20FINAL%203-23-09.pdf. Published September 2009. Accessed October 12, 2010.

2 Malik VS, Popkin BM, Bray GA, Després JP, Willett WC, Hu FB. Sugar sweetened beverages and risk of metabolic syndrome and Type 2 diabetes: a meta-analysis. *Diabetes Care* 2010; 33(11):2477-2483.

3 California Obesity Prevention Program. California Department of Public Health Website. http://www.cdph.ca.gov/programs/COPP/Pages/default.aspx. Accessed October 12, 2010.

4 Percent of Federal Poverty Guidelines (FPG) is used, among other things, to help determine eligibility for public programs. The upper limit for income eligibility for the Food Stamp Program is 130 percent FPG.

5 The federal Food Stamp Program is now called the Supplemental Nutrition Assistance Program (SNAP), and the California program is called CalFresh.

6 Bickel G, Nord M, Price C, Hamilton W, Cook J. Guide to measuring food security, revised 2000. Alexandria, VA; Food and Nutrition Service, U.S. Dept. of Agriculture; 2000.

7 Food security is defined as having "access, at all times, to enough food for an active, healthy life."

8 BMI - lower than 18.5 = underweight; BMI > 18.5 < 25 = healthy weight; BMI at least 25< 30 = overweight; BMI >30 = obese.

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Data Points

RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Perceived Effective Weight Control Strategies by Supplemental Nutrition Assistance Program Participation and Income Among California Women, 2009

California Department of Public Health
Cancer Control Branch
Network for a Healthy California

Weight loss is a health goal for many overweight and obese Americans, especially women. Nationally, women reported being nearly 1.5 times more likely than men to report trying to lose weight.[1] In California, about half of all women were overweight or obese in 2009, and low income women were significantly more likely to be so (55.6 percent vs. 45.2 percent, respectively).[2] The generally recommended strategy for weight loss is concurrent reduction of energy consumed and increased energy expended; yet only about one-third of Americans trying to lose weight report using this combination.[3-5] Increasing consumption of low energy-dense foods such as fruits and vegetables is another strategy promoted for weight loss and weight maintenance.[3]

Several California Department of Public Health programs have obesity prevention and chronic disease risk reduction as a goal of their work. For instance, the *Network for a Healthy California* mission includes increasing consumption of fruit and vegetables and daily physical activity. The *Network* provides nutrition education to Food Stamp Program[6] (FSP) recipients and other low income Californians whose household income is less than 185 percent of the Federal Poverty Guidelines (FPG). An analysis stratified by income examining perceived effective weight control strategies would be useful for informing program design.

These analyses were conducted with 4,226 women participating in the 2009 California Women's Health Survey who answered the open-ended question: *People use many strategies to lose weight and to keep the weight they have lost off. What is the (one) strategy you think is most effective in helping people to successfully lose weight or keep off the weight they have lost?* Women were also asked household size and income questions to classify their household income by ratio to the FPG and to identify their participation in the FSP, which has an upper income qualification limit of 130 percent FPG. Income related groups were categorized based on U.S. Department of Agriculture guidelines for participation in FSP nutrition education: FSP participants; non-FSP recipients with income at or below 130 percent of the FPG (income eligible women); women with income between 131 and 185 percent of the FPG (potentially eligible women); and non-eligible women from households with income greater than 185 percent of the FPG.

Responses to the weight control strategy question were categorized and close-coded. The relationship between FSP participation, household income, and perceived effective strategies for weight control was examined for statistical significance using bivariate analysis. *P* less than .05 was considered statistically significant. Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population.

- Overall, three weight control strategies were most commonly reported: combining physical activity and dietary change (31.8 percent); being active with no mention of diet (28.8 percent); and restricting food intake (e.g., limiting

Public Health Message:
Less than one-third of California's low income women and one quarter of very low income women identified the recommended strategy for weight loss, pairing increased energy expenditure with reduced energy intake. Mandatory menu labeling can raise Californian women's awareness of the caloric implications of their food choices, while public health messaging can emphasize the importance of both calories consumed and energy spent. Environmental changes that foster energy output can be supportive in many settings.

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Perceived Effective Weight Control Strategies by Supplemental Nutrition Assistance Program Participation and Income Among California Women, 2009

California Department of Public Health
Cancer Control Branch
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calories, reducing portion size) with no inclusion of physical activity (22.9 percent).

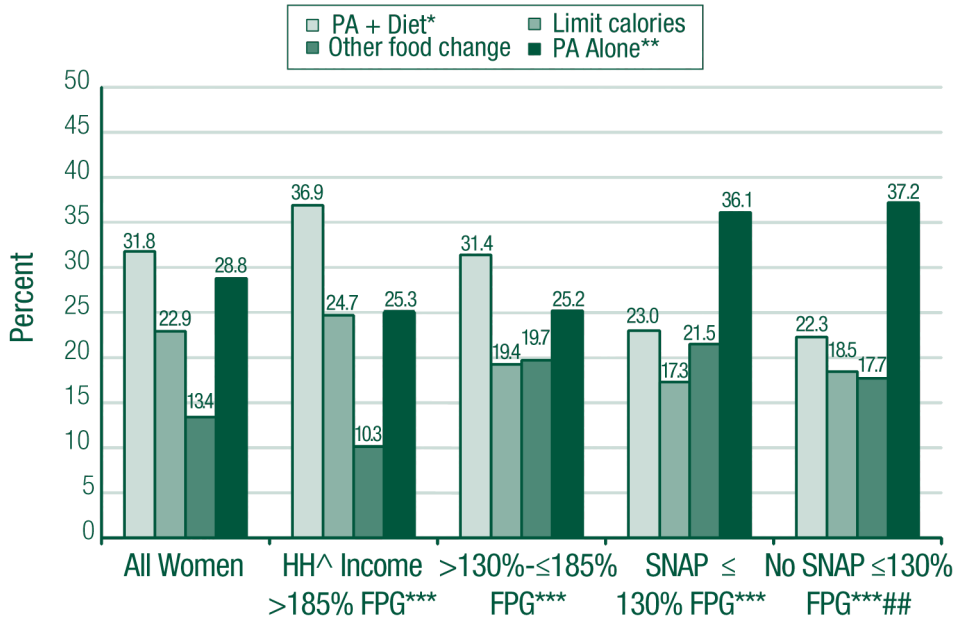
- Another 13.4 percent of women recommended changing food habits (e.g., eat "better" food, consume more fruits and vegetables, follow a vegetarian diet), but not limiting calories or serving sizes.

- A very small proportion, 3.2 percent, identified non-diet or physical activity strategies such as social support, willpower, medical intervention, drinking water, or other lifestyle changes.

- The two higher income groups of women were significantly more likely to report the recommended concurrent reduction of energy consumed and increased energy expended than were the two lowest income groups. The combination strategy of food restriction and increased physical activity was articulated by 36.9 percent of women from the greater than 185 percent of the FPG group and 31.4 percent of women from the 131 to 185 percent of the FPG group, while significantly fewer women from FSP households and income eligible households not receiving FSP benefits (both groups ≤ 130 percent of the FPG) reported the recommended strategy (23.0 percent and 22.3 percent, respectively) (Figure 1).

Figure 1

Perceived Effective Weight Control Strategies by SNAP# (CalFresh) Participation and Income Among California Women, 2009



\# Supplemental Nutrition Assistance Program , now named CalFresh in California
^ Household
* Physical activity plus diet; $P < .05$ lower between both ≤ 130% FPG group and each of the higher income groups
** Physical activity alone, $P < .05$ higher between both ≤ 130% FPG group and each of the higher income groups
*** Federal Poverty Guideline
Not a SNAP participant, but household income is at SNAP qualifying cutpoint ≤ 130% Federal Poverty Level

Source: California Women's Health Survey, 2009

Perceived Effective Weight Control Strategies by Supplemental Nutrition Assistance Program Participation and Income Among California Women, 2009

California Department of Public Health
Cancer Control Branch
Network for a Healthy California

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6 The federal Food Stamp Program is now called the Supplemental Nutrition Assistance Program (SNAP), and in California the program is now called CalFresh. SNAP-Ed is the acronym for the nutrition education provided to SNAP participants.

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CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Perceived Body Size Vs. Self-Reported Weight Among Adult Women in California, 2005-2009

California Department of Public Health
Cancer Surveillance and Research Branch
Survey Research Group Section
California Department of Public Health
Research and Evaluation Unit
Policy Planning and Evaluation Section
Cancer Control Branch

As awareness of obesity as a public health problem increases, it is important that people have an accurate perception of their body weight regardless of their weight status. Erroneous perception of body weight can have important health consequences.[1] Overweight individuals who do not believe they are overweight may not intervene effectively to control their weight. Conversely, underweight individuals who perceive themselves as normal or overweight may engage in unnecessary dieting or even extreme weight control practices such as binging and purging. The California Department of Public Health administers a number of programs that focus on obesity risk reduction. Discrepancies between actual weight and perceived weight can impede the acceptance or effectiveness of interventions to "achieve a healthy body weight."[2]

This study used data from 24,548 respondents from the 2005 to 2009 California Women's Health Survey to compare women's self-perceived weight category with their actual weight by age, race, education, poverty status, and marital status. Women's self-reported height and weight were used to calculate body mass index (BMI): BMI = [(weight (lb) * 703) / (Height^2 (in^2)]. A women's perceived weight category was based on the following question: *Currently, do you consider yourself overweight, underweight, or about the right weight for your height?* Women were categorized into four weight levels based on BMI. BMI less than 19 was defined as underweight; BMI equal to or greater than 19, but less than 25 was defined as healthy weight; BMI equal to or greater than 25, but less than 30 was defined as overweight; and BMI equal to or greater than 30 was defined as obese. Overweight and obese categories were combined, and BMI equal to or greater than 25 was defined as "overweight or obese." This analysis did not focus on women who were defined as "healthy weight" because these women are less likely to have problems due to their misperception. Misperception of weight was defined as underestimating or overestimating one's actual weight.

Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population. To control for confounding when examining misperceptions by race, estimates for race were stratified by age (less than age 45 and greater than or equal to age 45). Because of small sample sizes by age and race, misperceptions by age and race were analyzed for overweight and obese women combined. Unless otherwise noted, all reported differences were significant at *P* less than .05.

Classification by BMI indicated that 23.6 percent of women were obese, 27.3 percent were overweight, 44.5 percent were at a healthy weight, and 4.6 percent were underweight. A high percentage of women had misperceptions about their weight, with underweight women more likely to misclassify themselves compared with overweight or obese women. Among underweight women, 2.6 percent thought they were overweight, and 60.5 percent thought their weight was about right (total misperception equaled 63.1 percent). Among

Public Health Message:
Substantial numbers of underweight and overweight California women misperceive their weight status, and misperceptions are greater among women with low income and low education. Public health messages that enable women to correctly identify body weight status are important for engaging their participation in risk reduction activities. Greater misperception about weight among women with low income and low education points out the importance of tailoring such public messages to specific population subgroups.

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Perceived Body Size Vs. Self-Reported Weight Among Adult Women in California, 2005-2009

California Department of Public Health
Cancer Surveillance and Research Branch
Survey Research Group Section
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Research and Evaluation Unit
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Cancer Control Branch

overweight women, 28.4 percent underestimated their weight was about right and 0.5 percent thought they were underweight (total misperception equaled 28.9 percent). Among obese women, 5.2 percent thought that their weight was about right and 0.4.percent though they were underweight (total misperception 5.6 percent) (Figure 1). Combining the categories of overweight and obese women, 18.1 percent thought their weight was about right or that they were underweight.

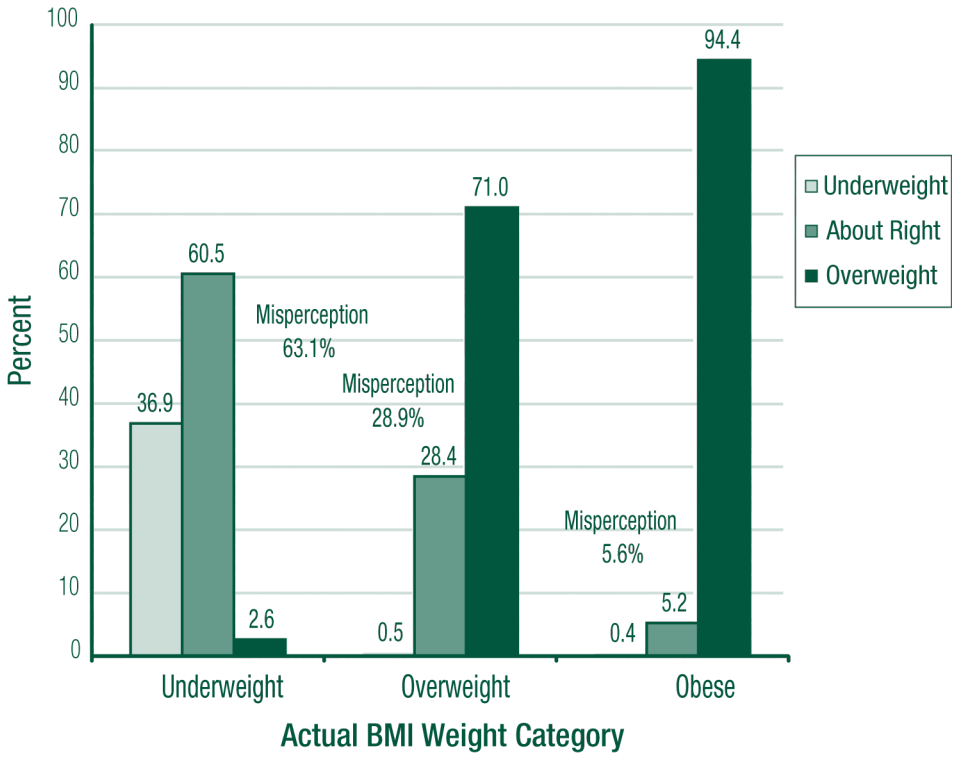
Among women who were overweight or obese, Hispanics were more likely than Whites to underestimate their weight category if they were younger than age 45 (23.2 percent vs. 15.7 percent) or were at least 45 years old (22.8 percent vs. 13.4 percent). Among obese or overweight women at least 45 years old, African Americans/Blacks were more likely than Whites to underestimate their weight (24.1 percent vs. 13.4 percent), but no significant difference was found between these groups among women younger than age 45.

Misperceptions about weight varied strongly by education and by poverty status among women in all underweight and overweight BMI categories.

- Obese and overweight women with less education were more likely to underestimate their body weight status than women with more education. Among obese women, those with less than a high school education were more likely than more educated women to underestimate their weight (13.4 percent vs. 3.5 percent, respectively); the same trend was found

Figure 1

Percent of Women Who Misperceived Weight Category by Actual Body Mass Index (BMI) Weight Category, 2005-2009



Source: California Women's Health Survey, 2009

Perceived Body Size Vs. Self-Reported Weight Among Adult Women in California, 2005-2009

California Department of Public Health
Cancer Surveillance and Research Branch
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in less educated vs. more educated overweight women (42.3 percent vs. 26.1 percent, respectively). In contrast, among underweight women, high school education level was not related to misperceptions about weight.

- Obese and overweight women from low income households were more likely to underestimate their weight than were women from higher income households. Among obese women, 9.6 percent of those at or below 130 percent of the federal poverty level (FPL) underestimated their weight status to be about right or underweight vs. 5.1 percent of those between 131 percent and 185 percent of the FPL, and 2.5 percent of those with household income more than 185 percent of the FPL.[3] Among overweight women, 38.4 percent of those from low income households ($\leq$ 130 percent of the FPL) underestimated their weight vs. 32.5 percent from those at 131 percent to 185 percent of the FPL and 23.3 percent among those at or above 185 percent of the FPL.[3]

- Among underweight women, 65.3 percent of those living in high income households $\geq$185 percent of the FPL) overestimated their weight status as about right or overweight, as did 55.5 percent of those living in households with income $\leq$130 percent of the FPL; however, the difference was not statistically significant.

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CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

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RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Prevalence of Obesity and Obesity-Related Behaviors Among California Women With Children Living in the Household, 2007-2009

California Department of Public Health
Maternal, Child and Adolescent Health Program

Parents serve as important role models for their children's eating and physical activity habits.[1-5] Additionally, parental obesity, especially maternal obesity, is a significant predictor of obesity in children.[6] Obesity, as well as fruit and vegetable consumption and physical activity are important not only to women's health, but also to their children because of the influence of these behaviors. This report focuses on the prevalence of obesity and obesity-related behaviors among women who have children living in their household and the influence of social determinants on these behaviors.

In the 2007, 2008, and 2009 California Women's Health Survey, participants were asked about their weight, height, fruit and vegetable consumption, physical activity habits, and the number of children living in the household. For this analysis, women with children, was defined as women who reported one or more child living in their household. Obesity was defined as having a body mass index (BMI) of 30 or higher. Fruit and vegetable consumption was defined as eating five or more servings of fruit and vegetables a day on average. Physical activity was defined as moderate-to-vigorous physical activity five or more days a week for 30 or more minutes.

The sample size for a single year by various demographic factors was too small for robust analysis; therefore, data from 2007, 2008, and 2009 was combined for this report. During that period, 15,272 women completed the survey, and of those 50.9 percent had at least one child living in the household. Responses were weighted by age and race/ethnicity to reflect the 2000 U.S. Census adult female population. Chi square analysis was performed to test for statistical significance.

The highlights of the analysis were:

- Women living with children were significantly less likely to eat five or more servings of fruits and vegetables a day than women who did not live with children (19.2 percent vs. 22.2 percent, $P < .001$).
- No difference was found in prevalence of obesity and moderate or vigorous physical activity between women living with children vs. women who did not live with children.

Racial/ethnic disparities were found (Figure 1):

- The prevalence of obesity among women living with children was highest among African Americans/Blacks (32.3 percent) compared with other ethnic groups (26.4 percent of Hispanics, 19.4 percent of Whites, and 13.3 percent of Asians/Others; $P < .001$).
- More than one-quarter of Whites (25.8 percent) reported consuming five or more servings of fruits and vegetables a day than Asians/Others (15.5 percent), African Americans/Blacks (14.3 percent), and Hispanics (14.1 percent) ($P < .001$).
- Whites reported engaging in more moderate or vigorous physical activity

Public Health Message:
Women with children in the household were less likely to consume the recommended amount of fruits and vegetables than women not living with children. Among women with children, this report found a higher prevalence of obesity and obesity-related behaviors among African-Americans/Blacks, Hispanics and those below the federal poverty level. Focusing interventions on the food environment, and nutrition education, as well as increasing participation in exercise in families during early stages of children's lives can effectively improve diet and physical activity in these adults and their children among these higher risk groups.[8,9]

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Prevalence of Obesity and Obesity-Related Behaviors Among California Women With Children Living in the Household, 2007-2009

California Department of Public Health
Maternal, Child and Adolescent Health Program

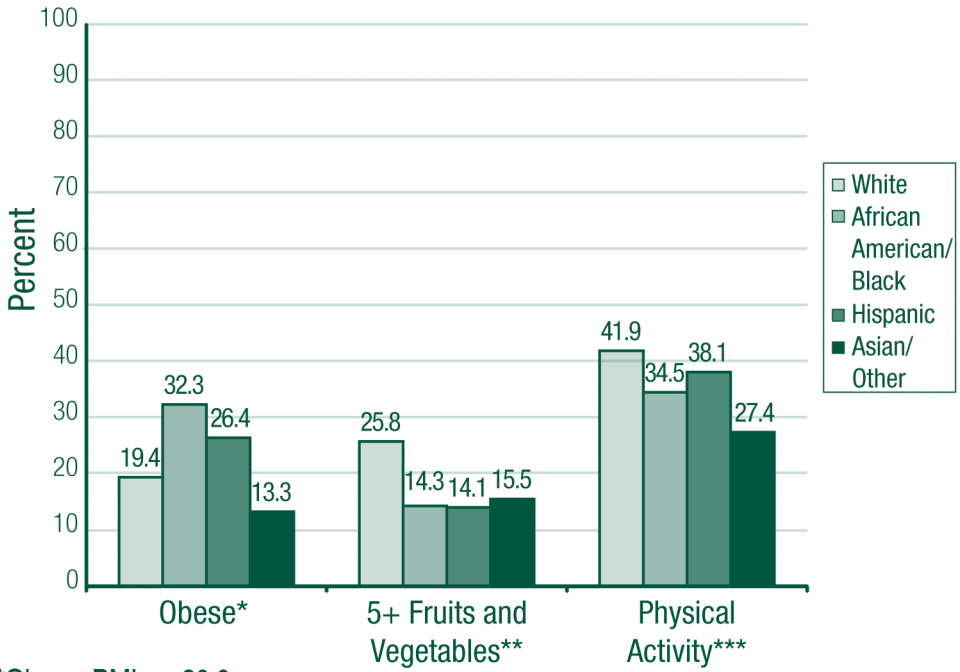
(41.9 percent) than Hispanics (38.1 percent), African Americans/Blacks (34.5 percent), and Asians/Others (27.4 percent) ($P < .001$).

Differences between women of different socioeconomic status were also evident (Figure 2):

- The prevalence of obesity in women with children living in the household was higher among those below the federal poverty level (FPL) (27.8 percent) than those in other income groups (26.1 percent for those with incomes of 100 - 200 percent of the FPL and 17.8 percent for those with > 200 percent of the FPL) ($P < .001$) (Figure 2).
- Almost one-quarter (24.3 percent) of those with higher income households (> 200 percent of the FPL) reported consuming five or more servings of fruits and vegetables a day, compared with those in the 100 to 200 percent of the FPL group (15.7 percent) and those at or below 100 percent of the FPL (12.8 percent) ($P < .001$).
- No difference was found in physical activity by socioeconomic status.

Figure 1

Obesity and Obesity-Related Behaviors Among Women Who Have Children Living in the Household by Race/Ethnicity, 2007-2009



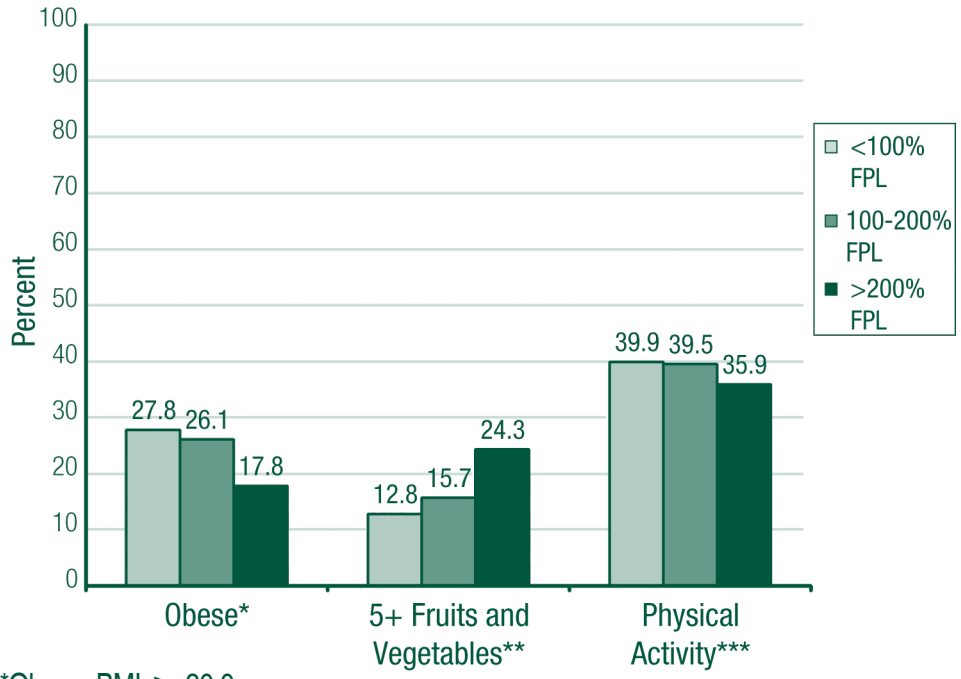
*Obese: BMI $\geq$ 30.0.
**Ate five or more servings of fruits and vegetables a day on average.
***Physical Activity: Moderate-to-vigorous physical activity five or more days a week for 30 or more minutes.

Source: California Women's Health Survey, 2007-2009

Prevalence of Obesity and Obesity-Related Behaviors Among California Women With Children Living in the Household, 2007-2009

California Department of Public Health
Maternal, Child and Adolescent Health Program

Figure 2 **Obesity and Obesity-Related Behaviors Among Women Who Have Children Living in the Household by Federal Poverty Level, 2007-2009**



*Obese: BMI $\geq$ 30.0.
**Ate five or more servings of fruits and vegetables a day on average.
***Physical Activity: Moderate to vigorous physical activity five or more days a week for 30 or more minutes.

Source: California Women's Health Survey, 2007-2009

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Analysis and writing of this report was completed while the author was employed with the Survey Research Group of the California Department of Public Health's Cancer Surveillance and Research Branch.

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Data Points

RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Food Insecurity among Female Victims of Intimate Partner Violence in California, 2008-2009

California Department of Public Health
Safe and Active Communities Branch

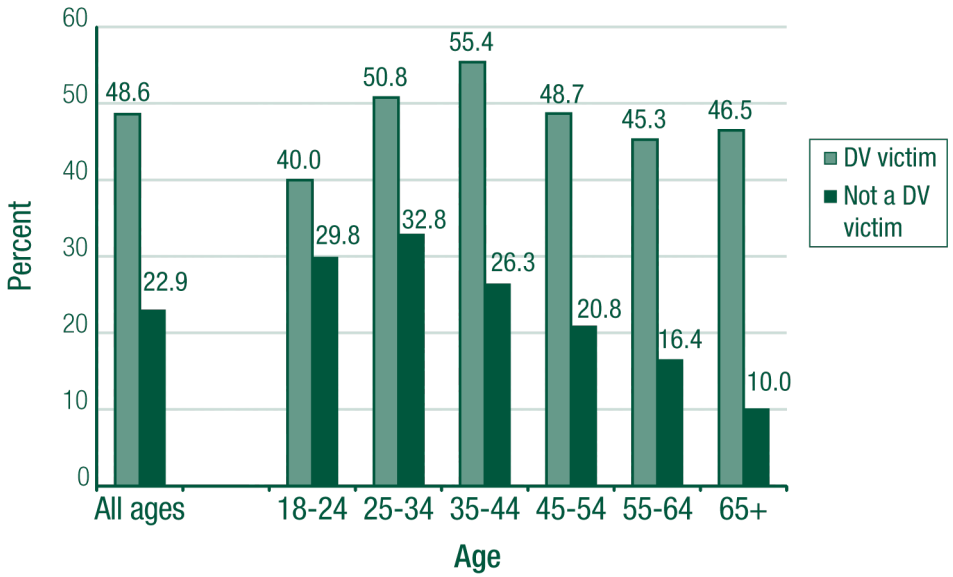
Recent research has shown that domestic violence (DV) is associated with poverty. One study found that women who had recently experienced DV had greater economic hardships than women who had not experienced such violence.[1] Poverty and domestic violence can each produce adverse effects, such as poor mental health, and both can reduce a person's ability to cope with other stressors. Because both DV and poverty result in stress and social isolation, poor women in abusive relationships are especially at risk.[2]

A total of 9,903 women participated in the 2008 and 2009 California Women's Health Survey (CWHS), with 7,950 of those responding to the questions on their experiences with DV as well as the questions on their access to food. Women age 18 and older were asked about experiencing any physical violence in the previous 12 months—whether an intimate partner threw something at them, pushed, kicked, beat, or threatened them with (or used) a knife or gun, or forced sex – and psychological violence, defined as having an intimate partner causing them to be frightened for the safety of themselves, their family, or friends; trying to control most or all of their daily activities; or following or spying on them.[3]

Respondents were also asked a series of questions from the U.S. Department of Agriculture's module[4] that measures food

Figure 1

Food Insecurity Among California Women According to Domestic Violence Victimization, 2008-09



Source: California Women's Health Survey, 2008-09

Public Health Message:
Women who experienced recent domestic violence (DV) were more than twice as likely to report that they were food insecure as women who had not experienced DV. Organizations providing services to victims of DV may be able to partner with food banks, the Women, Infants, and Children program, and other nutrition programs, as well as welfare and unemployment programs, to ensure that women experiencing DV are provided needed services.

Issue 8, Summer 2012, Num. 18

Food Insecurity among Female Victims of Intimate Partner Violence in California, 2008-2009

California Department of Public Health
Safe and Active Communities Branch

insecurity. The module consists of six questions about respondents' food supply to determine if they were limited by not having enough money to afford nutritionally adequate and acceptable foods. For purposes of reporting here, each question that is answered affirmatively increases the respondent's food insecurity score. Women with zero or one positive response are rated as food secure and those with two to six positive responses are rated as food insecure. Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population.

About 3.5 percent of women reported at least one incident of physical DV, and 6.6 percent said that they had experienced psychological DV in the previous 12 months. Overall, 7.5 percent of women said that they had been the victims of either physical or psychological DV in the previous 12 months.

CWHS results confirm the relationship between DV and poverty. Women who reported DV were more likely to report not having enough food to eat. About 26.6 percent of all respondents reported food insecurity. Women who had experienced either physical or psychological DV during the previous 12 months were more than twice as likely to be food insecure as women who had not experienced DV. Nearly half (48.6 percent) of those abused reported food insecurity, compared to 22.9 percent of women who reported no abuse. These differences were statistically significant.[5] For older women, the disparity in food insecurity among women who had experienced DV compared to women who had not experienced DV, was even greater. About 46.5 percent of DV victims ages 65 and older were food insecure, while among women of the same age who had not experienced DV, only 10 percent were food insecure. These differences were also statistically significant.

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3 Questions concerning domestic violence were funded by the Office of Family Planning Branch of the California Department of Public Health.

4 Food security module was funded by the California Department of Social Services and the Network for a Healthy California Program of the California Department of Public Health.

5 $P < .0001$, Chi square test

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CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

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Data Points

RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

The Relationship of Racial Discrimination to Health Behaviors and Mental Health of California Women, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

Racial discrimination has been studied as a possible reason for the health disparities reported between races and ethnicities. Research has shown more than 100 studies that link racial discrimination to physical health for African Americans/Blacks, Asians, and Hispanics.[1] Some studies found a relationship between discrimination and delays in obtaining medical tests,[2,3] mammography screening, and Pap tests;[4] however, some research has found mixed results concerning the use of preventive health services.[5] The perception of racial discrimination has also been associated with high levels of stress,[6] mental health problems,[7-12] and increased utilization of mental health treatment when racial identity was not controlled.[13] This report examined the impact of racial discrimination on health behaviors and mental health problems, and on the need and utilization of psychological treatment among California women.

In 2009, 4,924 respondents to the California Women's Health Survey were asked: *Have you ever experienced discrimination because of your race or ethnicity?* Regarding mental health needs, women were asked whether they had felt overwhelmed and whether they wanted help to deal with problems (and if so, if they had gotten help). To assess health behaviors, women were asked within how many years they had their last routine check-up; and if they had ever had a Pap test, mammogram; or hysterectomy. Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population. Differences between groups were evaluated using Chi square statistics.

Highlights

- Nearly one fifth of women ages 18 and above reported ever experiencing racial discrimination (19.9 percent, N = 771).
- Women who reported that they very often felt overwhelmed in the previous 30 days noted more racial discrimination (40.7 percent) than women who often felt overwhelmed (31.3 percent); sometimes felt overwhelmed (24.0 percent); rarely felt overwhelmed (23.9 percent); or never felt overwhelmed (18.0 percent; $P < .0001$) (Figure 1).
- Among women who reported feeling overwhelmed, those who noted wanting help for their problems reported higher rates of racial discrimination (32.1 percent) than women who did not want help (19.4 percent; $P < .0001$) (Figure 1).
- Among women who wanted help dealing with their problems, those who did not get help reported more racial discrimination (38.8 percent) than women who got the help they needed (29.0 percent; $P < .05$) (Figure 1).
- Women who said they had not had a hysterectomy reported higher rates of racial discrimination (23.4 percent) than women who reported having had a hysterectomy (19.2 percent; $P < .01$) (Figure 2).

Public Health Message:
For California women, higher rates of discrimination are associated with feeling overwhelmed and a need for mental health treatment. However, those who reported more discrimination also noted obtaining less mental health treatment, even though they indicated wanting treatment. Women could benefit from interventions that address the role discrimination can play in their mental health and their lack of mental health treatment.

Issue 8, Summer 2012, Num. 19

The Relationship of Racial Discrimination to Health Behaviors and Mental Health of California Women, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

- No significant difference was found in women who experienced racial discrimination based on timing of last routine check-up or having ever had a Pap test or mammogram.

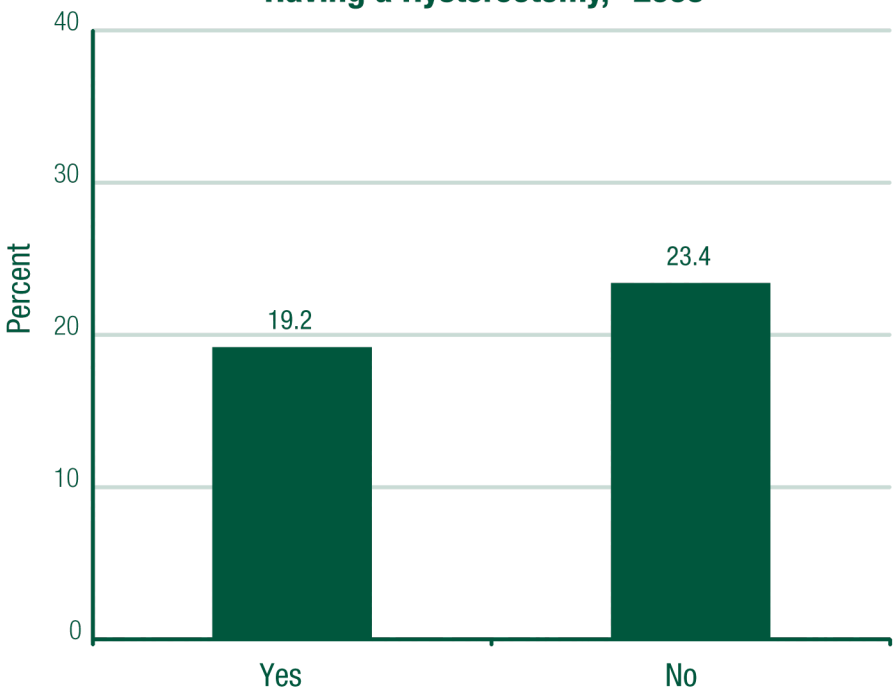
Figure 1

Racial Discrimination Rates of California Women by Feeling Overwhelmed,* Wanting Help, and Whether They Got Help,** 2009**

* *P* < .05, ** P < .0001
Source: California Women's Health Survey, 2009

Figure 2

Racial Discrimination Rates for California Women by History of Having a Hysterectomy,* 2009



* $P < .01$

Source: California Women's Health Survey, 2009

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Data Points

RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Prevalence of Racial Discrimination and Its Characteristics Among California Women, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

National studies have reported rates of racial discrimination ranging from 30 to 84 percent,[1-3] demonstrating that racial discrimination continues to be a regular part of life for many adults in the general population.[4] Racial discrimination has been studied as a possible reason for the health disparities reported between races and ethnicities. Research has shown more than 100 studies that link racial discrimination to physical health for African Americans/Blacks, Asians, and Hispanics.[5] However, the rates of discrimination have been shown to differ depending on the characteristics of the respondents.[6] Knowing the characteristics of people who report racial discrimination is important because it enables researchers to identify subgroups who may experience higher levels of discrimination.[4] The purpose of this data point was to obtain the prevalence of racial discrimination and the characteristics related to racial discrimination among California women.

In 2009, 4,924 respondents to the California Women's Health Survey, were asked: *Have you ever experienced discrimination because of your race or ethnicity?* In addition, women reported their age (analyzed as age group); race/ethnicity; marital status; whether they were limited in any way because of physical, mental or emotional problems; employment status; education; sexual orientation; and health insurance status. Hispanic women were also asked what language they read or spoke. Federal poverty level (FPL) was calculated (at or below 200 percent the FPL vs. above 200 percent of the FPL) and differences in levels of racial discrimination were examined. Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population. Differences between groups were evaluated using Chi square statistics.

Highlights

- Of respondents ages 18 and above, 771 women (19.9 percent) reported having ever experienced racial discrimination.
- Women ages 30 to 39 reported higher rates of racial discrimination (27.6 percent) than women ages 50 to 59 (25.5 percent); women ages 40 to 49 (23.5 percent); women ages 18 to 29 (22.2 percent); and women ages 60 and older (14.8 percent; $P < .001$).
- African American/Black women reported higher rates of racial discrimination (65.9 percent) than Asian/Other women (33.7 percent); Hispanic women (23.8 percent); and White women (14.4 percent; $P < .0001$) (Figure 1).
- Women who were separated or divorced reported higher rates of racial discrimination (34.2 percent and 27.4 percent, respectively) than women who were part of an unmarried couple (25.1 percent); never married (23.6 percent); married (22.2 percent); and widowed (11.6 percent; $P < .05$).
- Women who noted being limited because of physical, mental or emotional problems reported more racial discrimination (27.5 percent) than women without these problems

Public Health Message:
Considering the relationship between discrimination and health, knowing the characteristics of women who report more discrimination can assist in tailoring interventions to subgroups that are more impacted by racial discrimination.

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Prevalence of Racial Discrimination and Its Characteristics Among California Women, 2009

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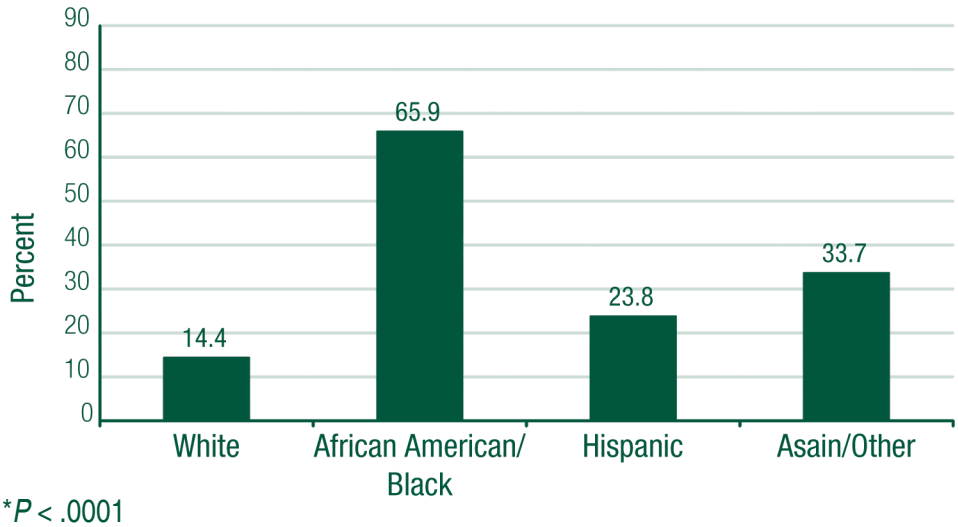
(21.7 percent; $P < .01$) (Figure 2).

- Among Hispanic women, those who reported speaking and reading English better than Spanish noted the highest rate of racial discrimination (39.7 percent), while women who only spoke and read Spanish reported the lowest rate (17.1 percent; $P < .001$) (Figure 3).
- Students reported the highest rate of racial discrimination (33.6 percent), while retired women reported the lowest rate (13.5 percent; $P < .0001$).
- Women with a college or postgraduate degree reported higher rates of racial discrimination (27.8 percent) than women with a high school degree/ some college/technical school (20.5 percent) and women with less than a high school degree (18.1 percent; $P < .0001$)
- Bisexual women reported the highest rate of racial discrimination; however, data were unreliable due to the small sample size for gay or lesbian women and those who noted being unsure.
- No significant difference was found in FPL and health insurance status between women who reported racial discrimination, compared with those who did not.

Figure 1

California Women Who Reported Experiencing Racial Discrimination by Race/Ethnicity,* 2009



*$P < .0001$

Source: California Women's Health Survey, 2009.

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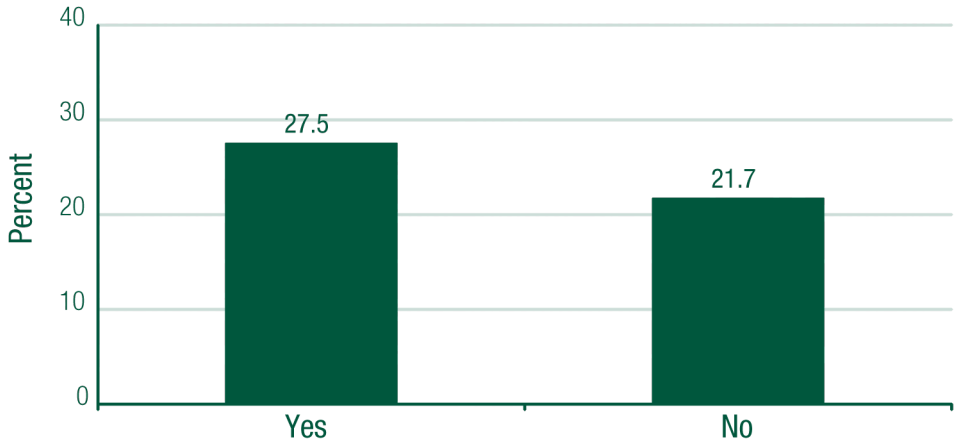
Figure 2

Racial Discrimination Rates for California Women by Whether They Reported Any Physical, Mental, or Emotional Problems,* 2009

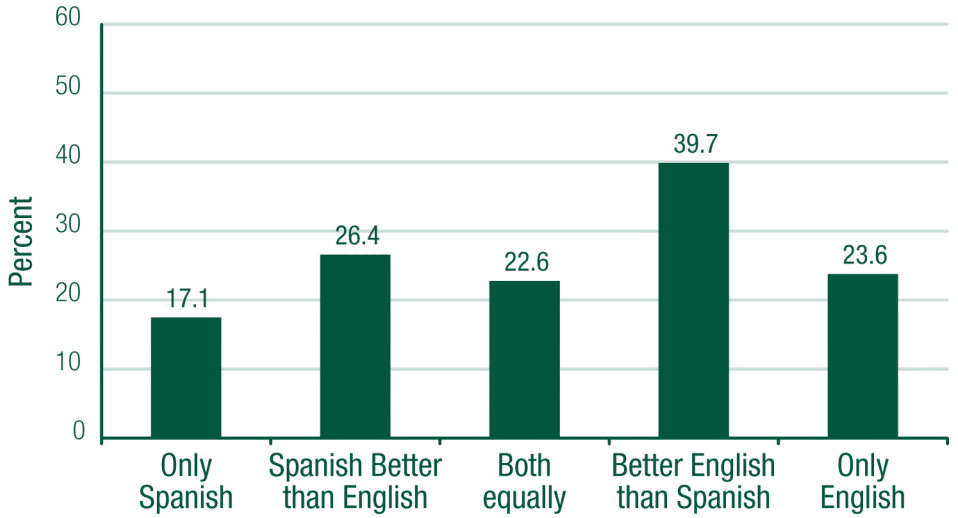


* $P < .01$

Source: California Women's Health Survey, 2009

Figure 3

Racial Discrimation Rates of Hispanic California Women by Language Spoken,* 2009



*P < .001

Source: California Women's Health Survey, 2009

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California Department of Public Health
Office of Women's Health

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OFFICE OF WOMEN'S HEALTH
CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

CWHS

Data Points

RESULTS FROM THE 2009 CALIFORNIA WOMEN'S HEALTH SURVEY

Demographic Characteristics and Poor Mental Health of California Women Who Report Discrimination and Intimate Partner Violence, 2009

Department of Health Care Services
California Department of Public Health
Office of Women's Health

The prevalence of experiencing racial discrimination as reported in survey data ranges from 30 percent to 84 percent,[1-3] demonstrating that racial discrimination is still a common experience for many adults in the general population.[4] Racial discrimination has been studied as a risk factor in the persistent health disparities observed across races and ethnicities.[5] Perception of racial discrimination may result in delays in seeking healthcare and poor adherence to treatment, which in turn increase the risk of poor health outcomes. Some researchers have found an association between perceptions of past racial discrimination and poor mental health among women.[6-7]

Another adverse health outcome with large racial and ethnic disparities is the history of intimate partner violence (IPV). Violence against women is quite prevalent, with about 4.8 women million in the United States experiencing IPV.[8] IPV rates are higher among American Indian/Alaska Native women (18.2 per 1,000) than among African American/Black women (8.2 per 1,000), Caucasian women (6.3 per 1,000), or Asian women (1.5 per 1,000).[9] According to the California Women's Health Survey (CWHS), about 40 percent of California women reported experiencing IPV in their lifetime.[10] Research has also shown that women who experience IPV are more likely to report poor mental health, compared with women without, a history of IPV.[11-14]

Little research has been done comparing the separate and combined impact of IPV and discrimination on women's mental health. Only one study was found, which showed that among African American/Black women who reported both IPV and discrimination, the prevalence of mental health problems was higher than among those who reported either or neither exposure. However, these conclusions were limited by small samples.[15] The purpose of this data point was to determine the prevalence of racial discrimination and IPV within sociodemographic subgroups of California women.

In 2009, CWHS respondents were asked: *Have you ever experienced discrimination because of your race or ethnicity?* The women were also asked about any physical violence in the previous 12 months[16] and psychological violence by a partner or former partner.[17-18] In addition, women reported their race/ethnicity (categories collapsed into non-White and White); age; whether they were limited in any way because of physical, mental or emotional problems; health insurance status; and education level. Federal poverty level (FPL) was calculated (at or below 200 percent of the FPL vs. above 200 percent of the FPL). Regarding their mental health, women were asked whether they had felt overwhelmed and how many days during the past 30 days that their mental health was not good.

Using the discrimination and the IPV questions, the women were divided into three groups: (1) women who reported both discrimination and IPV; (2) those who reported discrimination only; and (3) those who reported IPV only. Responses were weighted in these analyses by age and race/ethnicity to reflect the 2000 California adult female population. Differences

Public Health Message:
Demographic characteristics varied depending on whether women experienced discrimination or IPV alone, or both together. Both IPV and discrimination continue to impact the health of women, and efforts to screen women and monitor the prevalence of this issue should continue. Knowing the characteristics of women who report more discrimination and/or IPV can assist in tailoring interventions to subgroups, particularly mental health clients who are impacted by racial discrimination and IPV alone or in combination.

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among each group were evaluated using Chi square statistics.

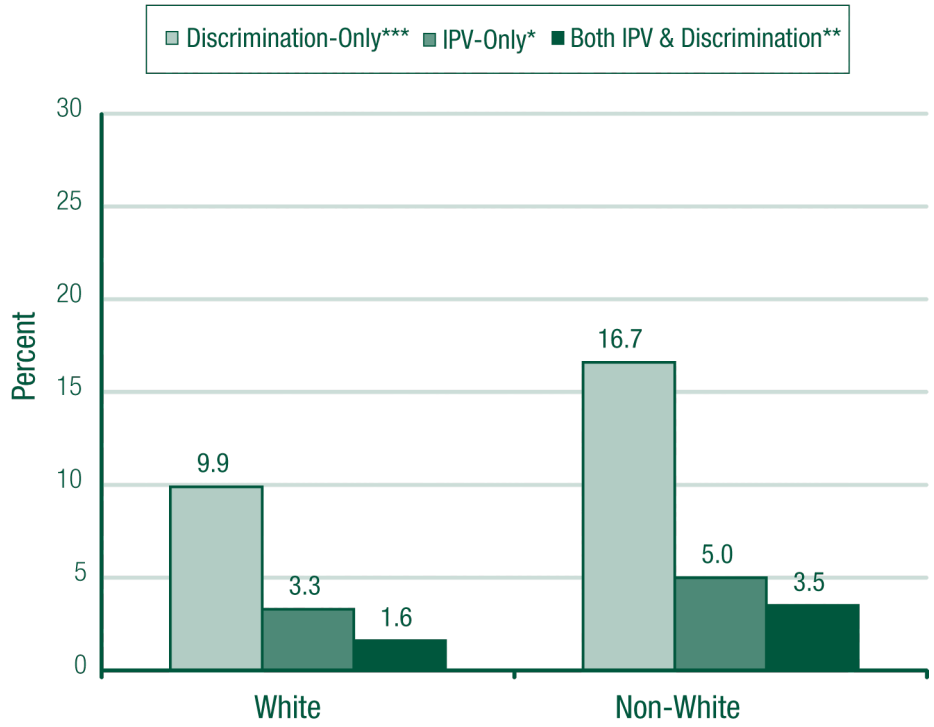
- Of the respondents, 19.9 percent reported having ever experienced racial discrimination, and 6.9 percent reported experiencing IPV in the past 12 months.
- Of the respondents, 17.2 percent reported only experiencing racial discrimination, 4.4 percent reported only experiencing IPV, and 2.5 percent reported experiencing both discrimination and IPV.
- Concerning feeling overwhelmed in the past 30 days, 5.2 percent reported very often feeling overwhelmed, 5.7 percent reported often feeling overwhelmed, 20.7 percent reported sometimes feeling overwhelmed, 27.4 percent reported rarely feeling overwhelmed, and 41.0 percent reported never feeling overwhelmed.
- Of the respondents, 88.0 percent reported having fewer than 14 days when their mental health was not good, and 12.0 percent reported having 14 or more days in when their mental health was not good.

Discrimination-Only

- Non-White women reported higher rates of discrimination-only (16.7 percent) than White women (9.9 percent; *P* < .0001) (Figure 1).

Figure 1

Reported Discrimination-Only, Intimate Partner Violence (IPV)-Only, and Both Discrimination and IPV Rates by Race/Ethnicity Among California Women, 2009



* P < .01; ** P < .001; *** P < .0001
Source: California Women's Health Survey, 2009

Demographic Characteristics and Poor Mental Health of California Women Who Report Discrimination and Intimate Partner Violence, 2009

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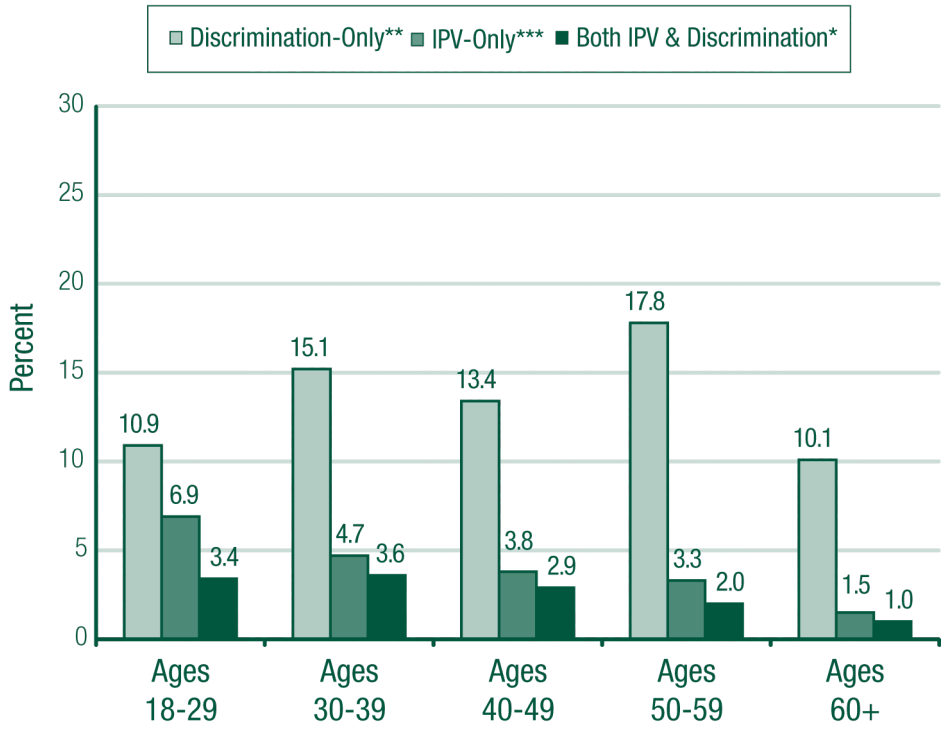
- Women ages 50 to 59, ages 30 to 39, and ages 40 to 49 reported higher rates of discrimination-only (17.8 percent, 15.1 percent, and 13.4 percent, respectively) than women ages 18 to 29 (10.9 percent) and women ages 60 and older (10.1 percent; $P < .001$) (Figure 2).
- Women above 200 percent of the FPL reported higher rates of discrimination-only (15.5 percent) than women below that level (11.1 percent; $P < .001$) (Figure 3).
- Women with more education (i.e., college/postgraduate) reported higher rates of discrimination-only (18.9 percent) than women with a high school diploma/GED (12.4 percent) and those with less than a high school diploma (10.4 percent; $P < .0001$).
- No significant difference was found in rates of discrimination-only with respect to disability, health insurance status, being overwhelmed, and in the number of mental health days.

IPV- Only

- Non-White women reported higher rates of IPV-only (5.0 percent) than White women (3.3 percent; $P < .05$) (Figure 1).
- Women ages 18 to 29 and ages 30 to 39 reported higher rates of IPV-only (6.9 percent and 4.7 percent, respectively) than women ages 40 to 49 (3.8 percent), ages 50 to 59 (3.3

Figure 2

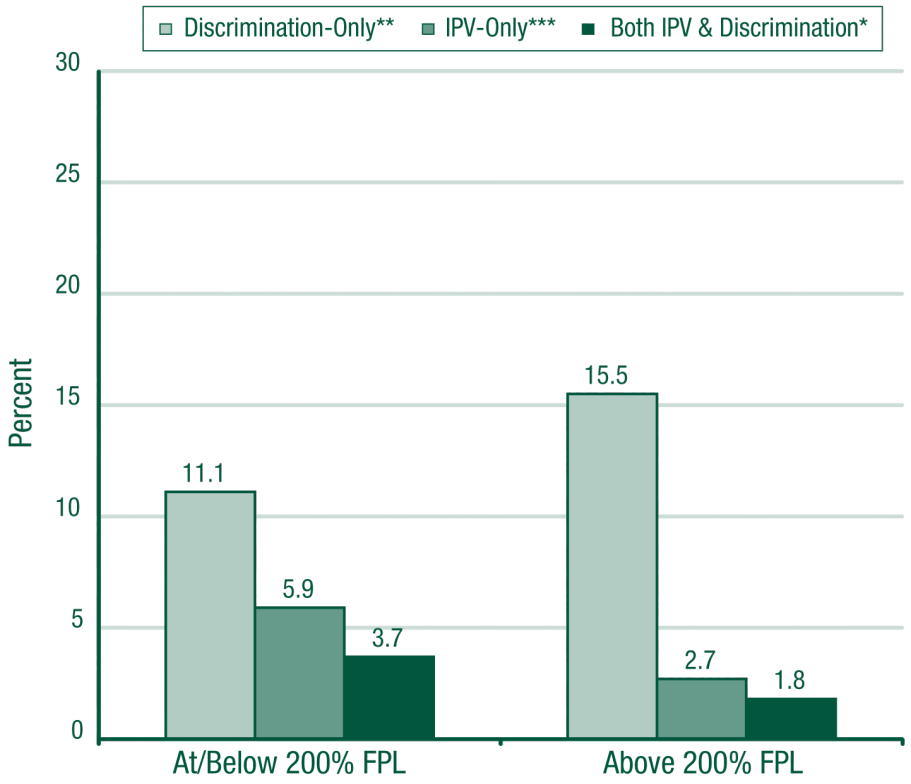
Reported Discrimination-Only, Intimate Partner Violence (IPV)-Only, and Both Discrimination and IPV Rates by Age Among California Women, 2009



* P < .01; ** P < .001; *** P < .0001
Source: California Women's Health Survey, 2009

Figure 3

Reported Discrimination-Only, Intimate Partner Violence (IPV)-Only, and Both IPV and Discrimination Rates by Federal Poverty Level (FPL) Among California Women, 2009



* P < .01; ** P < .001; *** P < .0001
Source: California Women's Health Survey, 2009

percent), and ages 60 and older (1.5 percent; *P* <. 0001) (Figure 2).

- Women at or below 200 percent of the FPL reported higher rates of IPV-only (5.9 percent) than women above that level of income (2.7 percent; *P* < .0001) (Figure 3).
- Women without insurance reported higher rates of IPV-only (5.9 percent) than women with insurance (3.6 percent; *P* < .05).
- Women with more education (i.e., college/postgraduate) reported lower rates of IPV-only (2.6 percent) than women with less than a high school diploma (5.9 percent) and those with a diploma/GED (5.1 percent; *P* < .01).
- Women who more often felt overwhelmed noted higher rates of IPV-only (very often, 11.3 percent; often, 9.7 percent; and sometimes, 8.0 percent) than women who less often felt overwhelmed (rarely, 3.8 percent and never, 2.6 percent; *P* < .0001) (Figure 4).
- Women who reported 14 or more days of poor mental health noted higher rates of IPV-only (8.3 percent) than women with less than 14 days of poor mental health (3.5 percent; *P* < .0001) (Figure 5).

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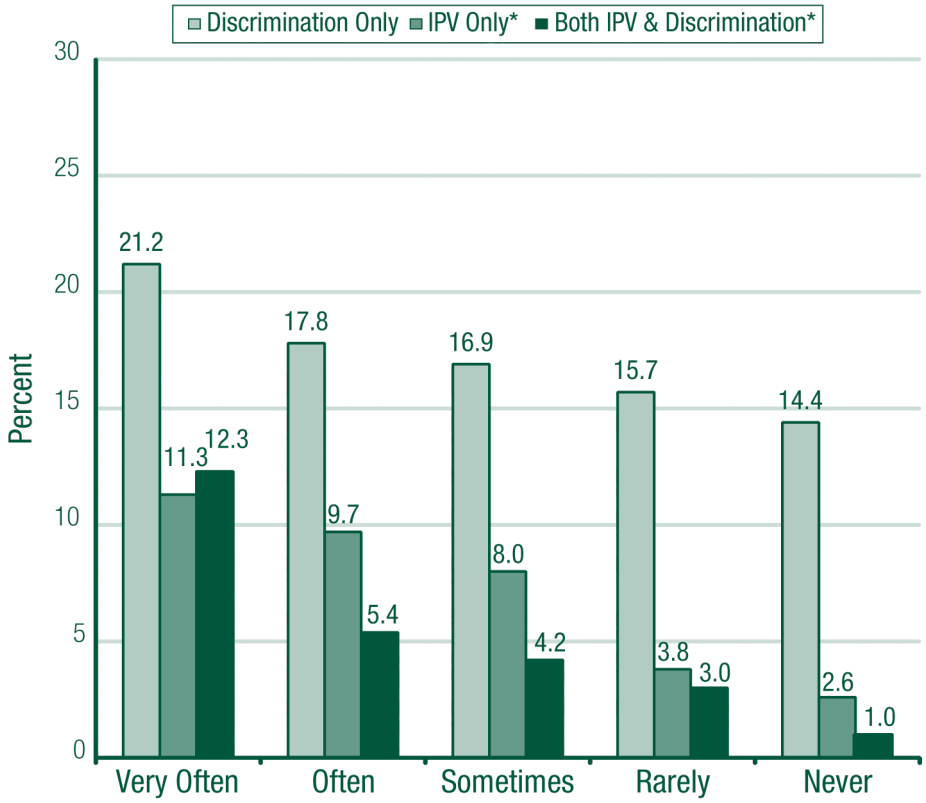
Figure 4

Reported Discrimination-Only, Intimate Partner Violence (IPV)-Only, and Both IPV and Discrimination Rates by How Often Felt Overwhelmed Among California Women, 2009



* P < .0001

Source: California Women's Health Survey, 2009

- No significant difference was found among women concerning IPV-only with respect to disability status, among women concerning IPV-only.

Both IPV and Discrimination

- Non-White women reported higher rates of experiencing both IPV and discrimination (3.5 percent) than White women (1.6 percent; *P* < .001) (Figure 1).
- Women ages 18 to 29 and ages 30 to 39 reported higher rates of both IPV and discrimination (3.4 percent and 3.6 percent, respectively) than women ages 40 to 49 (2.9 percent), ages 50 to 59 (2.0 percent), and women ages 60 and older (1.0 percent; *P* < . 01) (Figure 2).
- Women with a disability reported higher rates of both IPV and discrimination (5.0 percent) than women without a disability (2.0 percent; *P* < .001).
- Women at or below 200 percent of the FPL reported higher rates of both IPV and discrimination (3.7 percent) than women above that level (1.8 percent; *P* < .01) (Figure 3).
- Women who had feelings of being overwhelmed more often reported higher rates of both IPV and discrimination (very often, 12.3 percent; often, 5.4 percent; and sometimes, 4.2 percent) than women who less often had feelings of being

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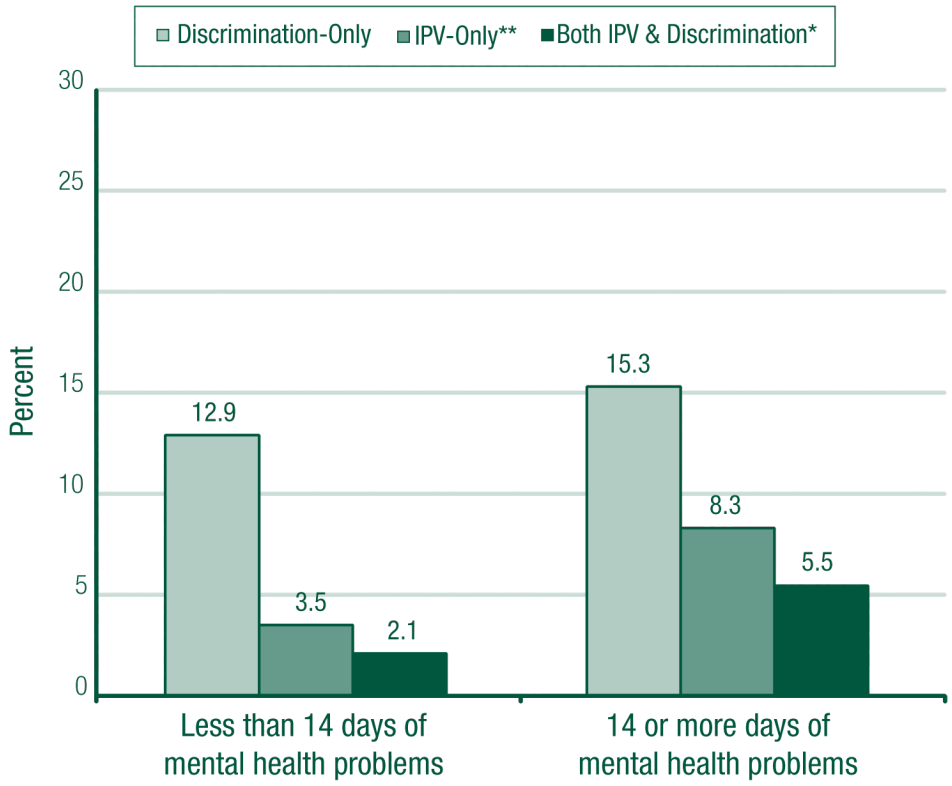
Figure 5

Reported Discrimination-Only, Intimate Partner Violence (IPV)-Only, and Both IPV and Discrimination Rates by Number of Poor Mental Health Days Among California Women, 2009



* P < .01; ** P < .001; *** P < .0001
Source: California Women's Health Survey, 2009

overwhelmed (rarely, 3.0 percent and never, 1.0 percent; *P* < .0001) (Figure 4).

- Women who reported having 14 or more days of poor mental health reported higher rates of both IPV and discrimination (5.5 percent) than women reporting fewer than 14 days of poor mental health (2.1 percent; *P* < .001) (Figure 5).

- No significant differences were found among women concerning both IPV and discrimination with respect to education level and health insurance status.

Concerning mental health, women who reported experiencing both IPV and discrimination reported more often having feelings of being overwhelmed, while those who reported IPV alone or having been discriminated against reported having more poor mental health days.

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16 Defined as whether an intimate partner threw something at them; pushed, kicked, beat, or threatened with (or used) a knife or gun; or forced to have sex.

17 Defined as having an intimate partner cause them to be frightened for their own safety, or that of their family or friends; or who tries to control most or all of their daily activities; or who follows or spies on them.

18 Questions concerning domestic violence were funded by the Office of Family Planning Branch of the California Department of Public Health.

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